

2006

The Process of Implementing Health-Promoting Schools in Zhejiang Province, China: A Dissertation

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THE PROCESS OF IMPLEMENTING HEALTH-PROMOTING SCHOOLS IN ZHEJIANG PROVINCE, CHINA

A DISSERTATION

Submitted by

Carmen E. Aldinger

In partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

LESLEY UNIVERSITY
February 25, 2007

Abstract

This study describes in detail the processes, interventions, challenges, and self-reported changes associated with implementing the Health-Promoting Schools (HPS) project in Zhejiang Province, China. It is a descriptive study, based on a case study model, using illustrative examples from nine schools.

Grounded theory analysis revealed detailed pre-implementation, implementation, and monitoring and evaluation processes; classroom-based, school-wide and outreach activities; and modifications to the physical and psycho-social school environment. Schools faced a number of challenges related to understanding and integrating the HPS concept and a lack of professional development and support. Yet, participants reported many health-conducive changes in their attitudes, conceptual knowledge, and behaviors associated with this project.

Theoretical analysis confirmed the applicability of a 3-part framework: key factors for changing policy and practice, the comprehensive HPS framework, and success factors of school health programs.

Acknowledgments

I would like to sincerely thank everybody who helped me complete this dissertation.

First and foremost, my deepest thanks go to the Health Education Institute (HEI) of the Centers for Disease Control and Prevention (CDC) in Zhejiang Province, China, under the leadership of Dr. Zhang Xin-Wei and Dr. Liu Li-Qun who lead the Health-Promoting Schools (HPS) project in Zhejiang Province and who arranged for our school visits. My thanks also go to Dr. Guo Jun-Xiang, who accompanied us on many of the school visits, and to the representatives of the provincial and municipal CDC and education departments. I am immensely grateful for the assistance of the nine schools in which we conducted interviews and for the 191 individuals (school administrators, teachers, students, and parents) who participated in our interviews—as well as the many others who coordinated the HPS project and facilitated the interview process. It is impossible for me to know and name all of those who contributed in some way. A very special thank you goes to my translators and interpreters without whom it would not have been possible for me to communicate with the participants of this study.

I would like to express my heartfelt appreciation for the support of my former WHO colleague, Jack Jones, who was instrumental in facilitating this evaluation, who participated in two of the three rounds of school visits, and who gave extensive comments on the draft of my dissertation. Jack's mentoring and friendship has been invaluable in my career. I am also indebted to WHO consultant, and former WHO colleague, Dr. Yu Sen-Hai who was instrumental in communicating with our colleagues

in China to work out many of the details and accompanied us on two of the three rounds of school visits. I also deeply appreciate the help of my dear Chinese friend, Ms. Lan Chen, from whom I have learned so much about the Chinese culture and who gave comments on my dissertation draft.

Very sincere thanks go to my dissertation committee members—Jared Kass, Gene Diaz, and Cheryl Vince Whitman—for accompanying and guiding me through this process of writing my dissertation. Their many good suggestions and our rich discussions contributed to mutual learning.

Last, but not least, I want to acknowledge the thorough work of my editor, Kim Elliott, and the capable help of my friend, Andy Altaner, with formatting.

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Executive Summary

The Focus of the Study

This qualitative study provides a detailed account of the feasibility and efficiency of implementing the Health-Promoting Schools (HPS) project—a framework for school health introduced by the World Health Organization (WHO)—in Zhejiang Province, China. Based on positive experiences with pilot-testing the HPS project in several schools, officials in Zhejiang Province chose to systematically scale up the HPS project over the entire province, partially in an effort to achieve the government-mandated “quality education” that focuses not only on academic achievement but on the whole child. From 2003 to 2005, our team of researchers from WHO and Education Development Center, Inc. (EDC) studied the project’s implementation in nine schools.

The study’s findings regarding the steps schools took to implement the project, and the types of HPS-related interventions the schools implemented, can inform policymakers and practitioners in other provinces and nations who implement HPS projects. Participants’ wide range of self-reported changes in knowledge, attitudes, and behaviors provide useful qualitative data regarding the utility of such programs. Findings about the challenges the schools faced and limitations of the study highlight issues of which those who implement such programs in the future should be aware.

This study builds on research regarding the reciprocal relationship between education and health. Researchers have found that improvements in education are associated with improvements in health, and improvements in health contribute to

improvements in learning. School-based programs that address specific health issues have shown results in changing participants' knowledge, attitudes, intentions, behaviors, and/or biomedical risk factors, although not all programs address all of these aspects and sometimes the impact of the changes is measured only in the short term.

While the HPS project takes a comprehensive approach to fostering health and learning with all measures at its disposal, existing research reveals insufficient data regarding its feasibility and effectiveness. Further, there is a lack of studies on the implementation of Health-Promoting Schools in developing countries, and there is a need to describe the complex implementation and impact of Health-Promoting Schools. Our study contributes to filling these gaps by identifying and analyzing the processes schools must follow to put the HPS framework into place and by reporting changes in individuals' lives who have participated in the HPS project in a developing country.

Methodology

This descriptive study provided a unique opportunity to add a qualitative evaluation component to an ongoing project. Based on a case study model, the study uses illustrative examples of changes in individual lives. Conceptually, the study falls into the field of institutional ethnography and used grounded theory to guide data analysis.

Research questions

The study sought to address the following research questions:

- What are the key processes through which schools in Zhejiang Province become Health-Promoting Schools?

- What interventions have schools in Zhejiang Province implemented to become Health-Promoting Schools?
- What are the major challenges that these schools need to overcome?
- What self-reported changes took place in the lives of individuals during the implementation process?
- What can be learned from these processes that may be of use to school systems in other developing nations?

Study site and participants

Located on the southeastern coast of China, Zhejiang Province is home to more than 46 million people. A climate of rapid economic and social development provided the backdrop for the HPS project in Zhejiang. Since we conducted this research in China, factors such as culture, interpretation, the “very important person” (VIP) status of researchers, school systems, and political agendas played an important role.

Nine schools with a total population of about 15,200 students participated in the study. The sample of 191 participants included: 26 school administrators (19 male, 7 female), 56 teachers and school staff (21 male, 35 female), 64 students (25 male, 34 female, 5 data missing), and 45 parents (14 male, 31 female).

Data collection and analysis

We collected data during three visits in June 2004, November 2004, and November 2005. We conducted four 1-hour group interviews in each school with school administrators, teachers, students, and parents, respectively. The data analysis process consisted of preparing the transcribed and translated data, analyzing them with Atlas.ti in

two stages, and writing up the results. The first stage of data analysis focused on analyzing interview transcriptions and written responses by free coding. The second stage focused on analyzing the obtained results by comparing the data to a three-part theoretical framework: Cheryl Vince Whitman's *Key Factors in Changing Policy and Practice (Change Framework)*, the components in WHO's HPS framework (HPS Framework), and nine "success factors" identified by WHO in its publication, *Skills for Health (Success Factor Framework)*.

Overview of Findings

Key processes through which schools become Health-Promoting Schools

Results, analyzed according to Grounded Theory, revealed a detailed, process—pre-implementation, implementation, and monitoring and evaluation—that schools go through to become Health-Promoting Schools. A summary of the steps follows.

Pre-implementation

- Gaining leadership support
- Being motivated
- Learning the HPS concept
- Choosing an entry point
- Setting up a special HPS committee
- Developing a work plan
- Setting up policies and systems

Implementation

- Being guided by rules and obedience
- Holding a start-up or mobilization meeting
- Prioritizing “health is first”
- Popularizing the HPS concept
- Cooperating with governmental departments
- Ensuring community cooperation and participation
- Obtaining input from students, parents, and teachers
- Being a role model
- Choosing interventions
- Providing training
- Conducting study visits
- Utilizing the Internet
- Choosing class topics
- Using new teaching and learning methods
- Teaching social skills and life skills
- Using new textbooks and materials

Monitoring and evaluation

- Carrying out process evaluations
- Conducting baseline, mid-term, and final evaluations
- Changing standards of evaluation

Interventions implemented to become Health-Promoting Schools

Schools reported that they implemented a variety of interventions including classroom-based activities, school-wide activities, outreach, and efforts to change the school environment.

Classroom-based activities

- Integrating health into regular teaching
- Holding health-specific class meetings
- Providing individualized instruction and care

School-wide activities

- Adding extracurricular activities
- Creating wallboards and bulletins
- Holding competitions
- Sponsoring signature activities
- Launching arts days and other festivals
- Providing psychological consultation and care
- Offering physical examinations and health services
- Checking students' appearance
- Encouraging physical exercises
- Broadcasting through school radio stations
- Providing nutritious food
- Instituting safety measures
- Forming unique student support groups

Outreach

- Disseminating information to parents
- Disseminating information to communities
- Conducting social research
- Engaging in social practice

Efforts to change the school environment

- Improving facilities
- Enhancing cleanliness and beautification
- Assuring a harmonious psycho-social school environment
- Maintaining a caring atmosphere

Challenges of becoming a Health-Promoting School

Schools reported that they faced a number of challenges including understanding and integrating the HPS concept and lack of professional development and support.

Understanding and integrating the HPS concept

- Balancing academic studies and health interventions
- Coping with an increased workload for administrators and teachers
- Understanding the concept of a Health-Promoting School
- Needing motivation and courage to participate
- Requiring time to change habits
- Resisting project rules
- Addressing health and environmental problems
- Improving relationships between schools and parents

- Strengthening communication between teachers and students
- Extending health promotion to the community and families
- Sustaining and expanding health promotion efforts

Lack of professional development and support

- Needing to expand knowledge, skills, and experience about health promotion
- Requiring technical support
- Lacking qualified staff
- Needing governmental support
- Lacking funds and facilities

Self-reported changes in attitudes, knowledge, and behavior

Participants reported a diverse range of changes in their attitudes, knowledge, and behavior associated with Health-Promoting Schools.

Changes in attitude

- Paying more attention to health
- Attaining better “psychological quality” and confidence
- Forming friendships between teachers and students
- Feeling more relaxed

Changes in knowledge and conceptual understanding

- Increasing knowledge of many health issues
- Developing a broader concept of health
- Gaining a better understanding of the HPS concept

Changes in behavior

- Actively participating in the project
- Increasing physical activity
- Improving sanitary habits
- Reducing or quitting smoking
- Changing various bad habits
- Eating more nutritiously
- Increasing safety behavior
- Sustaining fewer injuries
- Improving parent-child communication

Unique and unexpected findings

Analysis of these self-reports pointed to some unique and unexpected findings of this study:

- Participants increased their understanding of the broad concept of health and Health-Promoting Schools.
- Participants gained a deeper understanding of the relationship between study and health.
- Teachers and administrators utilized a truly comprehensive approach that addressed various health topics, utilized all components of the HPS model, and focused on holistic development of students.
- Schools prioritized health and treated it as a co-responsibility with families and communities.
- Children educated their parents and served as change agents.

- Leaders provided support and encouragement and served as role models.

In contrast to what would be expected from the traditional educational system in China, we observed:

- Teachers used participatory teaching and learning strategies
- Students worked together instead of competing.

In accordance with the educational system and culture in China, we observed that participants

- Strove to achieve harmony (which is usually not part of WHO's health promotion vocabulary)
- Demonstrated concern for others
- Exhibited a spirit of school connectedness

Schools' evaluation results indicated the effectiveness of the HPS project, reflected a change in evaluation concepts to a holistic approach to assessment, but also pointed to a need for more training and technical support.

Analysis: The feasibility and efficacy of the HPS model

This study clearly showed that it was feasible and effective to implement the HPS project in Zhejiang Province, China, even though schools focused on different health issues and had different levels of resources.

The process of implementing Health-Promoting Schools in Zhejiang Province largely confirmed the applicability of three theoretical frameworks.

The Change Framework

The key factors of Vince Whitman's *Change Framework* were exhibited as follows:

- Attention to external forces: China's one-child policy added the risk factor of academic pressure, but also the success factor of children's effective outreach to family members. The country's political system contributed to the successful systematic implementation, and the educational system's redefinition of "quality education" might have provided an opportune moment for Health-Promoting Schools.
- Vision or big ideas: Establishing Health-Promoting Schools was the vision or big idea for this project. Health-Promoting Schools address relevant priority health issues in China and provide an opportunity to refocus on the traditional Chinese holistic concept of health.
- National guidelines and movement: The HPS concept fit into the national movement toward quality education.
- Leadership skills: The strong leadership of the school principal and administrators was crucial.
- Administrative and management support: Schools set up special HPS planning committees as management and administrative support and popularized the HPS concept.
- Data-driven planning and decision-making: Most schools considered various factors related to experience, perception, and local survey data for their decision-making more so than WHO-required surveys.

- Team training: Initial training was needed for learning the HPS concept and included training by Chinese Centers for Disease Control and Prevention (CDC) staff and other experts, visits to other Health-Promoting Schools, and self-study. More training and technical support was requested.
- Critical mass and supportive norms: To get a critical mass of people, schools organized start-up or mobilization meetings and, in some cases, sponsored signature activities.
- Dedicated time and resources: To implement the HPS project, schools needed a dedicated team, financial support, and time.
- Adaptation to local concerns: Developing work plans tailored to each community's unique context helped schools adapt the HPS project to local concerns.

The Health-Promoting Schools framework

Schools in Zhejiang Province implemented comprehensive interventions that addressed all of the components of Health-Promoting Schools:

- School health policy: Schools made HPS regulations for each school department, established non-smoking policies, and posted policies on school walls or boards.
- Physical school environment: Schools improved facilities such as dining rooms, dormitories, teaching and sports facilities, enhanced cleanliness, and held beautification projects
- Psycho-social school environment: Schools assured a harmonious and caring psycho-social atmosphere, established good relationships between teachers and students, and equal treatment.

- Health education: Teachers integrated health topics into regular teaching, special health education classes, extracurricular activities, drawing and writing competitions.
- Health services: Schools offered annual medical check-ups for students and staff, prevention and treatment of common diseases, and had doctors on 24-hour duty.
- Nutrition services: Schools offered nutritious and balanced meals, more food variety, and training by nutritionists for kitchen staff.
- Counseling/mental health: School offered psychological consultation by specially trained teachers, hotlines, special mailboxes, and set up special consultation rooms.
- Physical exercise: Schools required morning exercises and engaged in sports matches.
- Health promotion for staff: Schools encouraged staff to quit smoking and to exercise more, and offered psychological consulting for teachers.
- Outreach to families and communities: Schools distributed materials to communities, sent letters and calls to parents, and conducted parents' school .

Besides addressing all HPS components, schools in Zhejiang Province also engaged various people in developing Health-Promoting Schools, as suggested by the HPS framework.

Participants most often associated the concept of a Health Promoting School with knowledge about health (health education), a beautiful and clean school environment (physical environment), a harmonious and comfortable atmosphere (psycho-social school environment), and rules and requirements that call for all of this (school policy).

Success factors of school health programs

Health-Promoting Schools in Zhejiang province also exhibited the success factors of school health programs:

- Gaining commitment: Commitment was important at school level—from the principal—and at governmental level—from the education and health bureau.
- Theoretical underpinning: The interventions were based on the theoretical underpinnings of the Health-Promoting Schools framework.
- Relevant content: The content was chosen for various reasons such as people's awareness and knowledge, previous surveys, students' condition and development, and school's condition.
- Participatory methods: Schools used some new and participatory learning methods in which students were more actively involved.
- Time and sequence: Schools developed work plans in which they specified the timing and sequence of major activities.
- Multi-strategies: Schools implemented a variety of activities.
- Teacher training: Teacher training and professional development included learning the Health-Promoting Schools concept, principals acting as role models for healthy behavior, training through experts, study visits to other Health-Promoting Schools, and brainstorming among teachers.
- Relevance: Class topics were chosen for various reasons such as economic development, health condition, development and actual situation of students.

- Participation: Cooperating with and participation from parents and communities were important aspects.

Strengths and limitations

Factors that contributed to the success of this project included:

- Sincere commitment of participants
- Flexibility of the HPS model to adapt to school-specific circumstances
- Integrating pre-existing activities into a comprehensive model
- The government mandate of quality education, one-child policy, and decentralized government structure

Factors that can be strengthened in subsequent program implementation include a need for increased training and professional development and data-based decision making.

Limitations of this study included:

- The special role of the researcher
- Social desirability bias
- Issues related to language and translation,
- Cultural differences
- Pre-existing activities
- Timing of interventions and surveys
- Study design
- Self-reporting of participants

Future research may utilize a researcher who can converse in the local language and who can stay with the study population longer, and may compare the process of

establishing Health-Promoting Schools in China with establishing Health-Promoting Schools in other countries.

Chapter 1. Conceptual Introduction and Literature Review

The link between health and education and the role of Health-Promoting Schools

Public health and education researchers have documented that there is a reciprocal relationship between health and education. Improvements in education are associated with improvements in health, and improvements in health contribute to improvements in learning. Within the field of education, researchers have found that two types of education can influence health. First, studies have linked education in general (e.g., years of education or level of literacy) with improvements in health status. Second, school-based health education (e.g., offered as part of comprehensive school health programs such as Health-Promoting Schools) has been shown to improve knowledge, attitudes, and skills related to health risk behaviors and thus health promotion.

Improvements in general education associated with improvements in health

For decades, researchers have linked education and literacy to health. Studies in developed and developing countries alike have repeatedly shown that educated and literate people are likely to be healthier. Conversely, limited access to education has been linked to reduced health and well-being (Nutbeam & Kickbusch, 2000).

Education is one of the key “social determinants of health” (Marmot & Wilkinson, 1999). The correlation between education and health or health-related behaviors (Pincus, Callahan, & Burkhauser, 1987) has been explained by researchers in several ways. Education can expand opportunities for the individual, increase one’s knowledge of the world and the options it offers, build self-confidence, and increase specific skills and capabilities (Green & Potvin, 2002), including those related to health. Ilona Kickbusch, who has led a distinguished career at the World Health Organization (WHO), and Don Nutbeam, who is internationally renown in the field of health promotion, wrote that, “In all countries the lack of access to education and learning means reduced health and well-being, and in the developing countries it can be as deadly as the lack of access to vaccines” (Nutbeam & Kickbusch, 2000).

Girls and women, in particular, benefit significantly from the health benefits of education. Over the years, many studies—especially from developing countries—have linked education to improved health and well-being for women, their children, and their society (e.g., Arya & Devi, 1991; Bledsoe, Casterline, Jonson-Kuhn, & Haaga, 1999; Buckshee, 1997; Caldwell, 1986; Das Gupta, 1990; Gupta, Mehrotra, Arora, & Saran, 1991; Harrison, 1997; Nussbaum, 2000; Sen, 1999). Reviews of research from around the world have shown that educated girls are healthier and more able to participate in earning income. When they become mothers, educated girls are better able to care for their children. The single most important predictor of a child’s health is the mother’s level of education. Education can strengthen women’s ability to create healthy households, to benefit from health information, and to make good use of health services (Filmer, 1999;

1993; WHO Expert Committee on Comprehensive School Health Education and Promotion, 1997; 1993).

A recent report, *What Works in Girls' Education: Evidence and Policies from the Developing World* (Herz & Sperling, 2004), brings together the vast scholarly literature on the benefits of girls' education. This report provides many studies that show that education of girls is associated with various benefits: increased income and productivity, including farming that is more productive; healthier and better-educated families; HIV/AIDS prevention; women's empowerment, including reduced domestic violence and genital cutting and more resources to spend on the health and education of their families.

Thus, a substantial amount of research associates basic education with the improvement of health.

School-based health education associated with improvements in health

In addition to basic education, schools have also offered specific health education that has been associated with improvements in health and educational attainment. A significant body of theory and research provides a rationale for why health education, as part of a comprehensive school health program, can be useful and beneficial to health (e.g., Mangrulkar, Vince-Whitman, & Posner, 2001; Vince-Whitman, Aldinger, Levinger, & Birdthistle, 2001; World Health Organization, 2003).

There is a growing body of evidence worldwide on the link between health status and educational performance and on the effectiveness of various elements of programs and policies that comprise features of Health-Promoting Schools (Aldinger, 2005). However, the studies and the quality of their designs vary widely. Some studies include

multiple interventions, while others evaluate only one component, such as health education.

In October 2004, a search in MEDLINE and other databases for school health articles published between 2000–2004 initially yielded 285 citations related to school health programs and evaluation. Seventy citations seemed most relevant to the school health concept discussed above. These 70 studies included a variety of designs and interventions. Nine studies were reviews of multiple studies or meta-analyses that covered from 3 to 221 individual studies. All of these reviews and meta-analyses showed positive intervention effects for most, but not all, of the primary studies. Thirty-nine studies covered school-based programs with multiple components that included at least one intervention besides health education. Twenty-two studies reported educational interventions based on a health education curriculum. Further analysis of some of these studies is included below.

Overall, in terms of effectiveness, the studies from the MEDLINE search revealed:

- School-based health education programs can have long-term effects on various health issues.
- Some school-based programs that address specific health issues have shown results in changing either knowledge, attitudes, intentions, behaviors, and/or biomedical risk factors, though sometimes not all of these aspects or only in the short term.
- Some school-based programs have not shown long-term effects on health outcomes.

- Some school-based programs have shown positive changes in knowledge or attitudes, but not in behavior or health status (Aldinger, 2005).

Ten articles were selected for closer review to determine, first, the extent to which the programs included the following factors that were associated with program success, and, second, if there were challenges and limitations that should be considered in planning future programs (Aldinger, 2005).

Success factors. The WHO publication *Skills for Health* identified nine factors that are particularly relevant to the success of health education programs, based on international, though mostly Western, literature (World Health Organization, 2003, p. 27-30). The nine factors follow below, along with examples that show that most of the programs studied confirmed the importance of the factors.

- “Gaining commitment. Intense advocacy is required from the earliest planning stages.” Most studies included a review of the literature to make a solid case for the need for the program, and some studies engaged stakeholders in designing the intervention.
- “Theoretical underpinnings. Effective programs are based upon theoretical approaches that have been demonstrated to be effective in influencing health-related risky behaviors.” Most of the 10 reviewed studies mentioned that theories such as the health belief model, social cognitive theory, theory of planned behavior, and self-efficacy theory of behavior change laid the foundation for the interventions.
- “Content of programs. The information, attitudes, and skills that comprise the program content should be selected for their relevance to specific health-

related risk and protective behaviors.” For example, one study stated that a previous study provided the information for the content of the program. The study had identified salient modal beliefs and main determinants of targeted behaviors among the studied population in regard to postponing sexual intercourse and condom use and obstacles to postponing sexual intercourse and condom use (Caron, Godin, Otis, & Lambert, 2004).

- “Methods. Effective programs utilize a variety of participatory teaching methods, address social pressures and modeling of skills, and provide basic, accurate information.” Almost all of the programs seemed to provide basic knowledge. Most of the studies mentioned that they used participatory methods and addressed skills-building.
- “Timing and sequence. Effective education programs are intensive and begin prior to the onset of risk behaviors.” One of the interventions with favorable results was a 40-session, 1-year intervention (Eisen, Zellman, & Murray, 2003), thus it was more intense than the other interventions reported here. A school-based AIDS prevention program in Spain showed increasing condom use in those students who were not initially sexually active but not in those who were already sexually active when the program started (Villalbi, 2000). This supports the point that it is important to begin interventions before risk behaviors start.
- “Multi-strategy for maximum outcomes. Programs need to be coordinated and consistent with other strategies.” Programs with multiple strategies show some

positive intervention effects, however, not for all of the variables. Thus, this success factor may need further research.

- “Teacher training and professional development. Teachers or peer leaders of effective programs believe in the program and receive adequate training.” Many of the reviewed studies pointed to the crucial importance of teacher training. For example, a school-based AIDS/STD peer education program stated that “adequate training and access to a competent program consultant are absolutely required” (Caron et al., 2004).
- “Relevance. Programs must be relevant to the reality and developmental levels of young people and must address risks that have the potential to cause most harm to the individual and society.” For example, an innovative injury prevention intervention from the United States consisted of curricula that were developmentally appropriate for the targeted age groups in Grades 1–3. It targeted the brain and spinal cord injuries that are the most likely to result in death or permanent disability, and resulted in an increase in relevant knowledge and a decrease in self-reported, high-risk behaviors among children who participated in the intervention (Gresham et al., 2001).
- “Participation. [Effective programs] ... allow involvement of students, parents, and the wider community in the program at all stages.” Several programs reported active involvement of various stakeholders. For example, a successful school-based self-esteem education program in Australia was developed in conjunction with teachers, principals, school counselors, youth workers, parents’ groups, and pediatricians (O’Dea & Abraham, 2000). In an

AIDS/STD peer education program, senior students who served as peer educators developed their own sketches, which they subsequently used to teach junior students (Caron et al., 2004).

Besides confirming these success factors, the reviewed studies also pointed to challenges and limitations.

Challenges and limitations. The reviewed articles pointed to several limitations that influence the effectiveness of a program and the quality of measures to evaluate it. Program administrators must consider these factors when planning and evaluating future programs as well as interpreting results from these and other studies. The limitations include fidelity of implementation—or lack thereof—length and quality of the intervention, validity of the questionnaire, limitation of self-reported behavior, and attrition of students most at risk.

- **Fidelity:** A few studies reported problems with implementing programs properly. These studies showed only marginal or ineffective results. For example, focus groups revealed that the administrators of a school-based AIDS education program in rural Uganda, which had only minimal effects, implemented the program incompletely and on an ad hoc basis and covered key activities (e.g., role-plays, condoms) only very superficially. The reasons for this were a shortage of classroom time and teachers' fear of controversy and the unfamiliar (Kinsman et al., 2001).
- **Length and quality of the intervention:** The interventions in the reviewed articles varied widely, from two 1-hour educational sessions for smoking prevention implemented within one week (Heimann, 2000) to 40 sessions of a

comprehensive life skills drug education program implemented over 1 year (Eisen et al., 2003). The short smoking prevention program, evaluated only 1 week apart, showed significant increases in knowledge, while the life skills program, evaluated 2 years after baseline, showed significant changes in the prevalence of substance use.

- **Validity of the questionnaire:** The questionnaires that measured the variables also varied in quality and length. One study used a set of at least five standardized and validated questionnaires (O'Dea & Abraham, 2000), while another study used an adaptation of validated instruments (Caron et al., 2004). Other studies did not give details about the source or validity of the questionnaire (e.g., Foshee et al., 2004) or used unique testing instruments for each grade (Gresham et al., 2001). This raises a concern about the validity of the questionnaires and inevitably affects the measurement of the outcomes.
- **Self-reported behavior:** Almost all of the studies relied on self-reported behavior. One study confirmed smoking status with saliva tests. One study reported the self-reported nature of the survey as a limitation (Gresham et al., 2001). Research, mostly from developed countries, has shown that cognitive and situational factors can affect adolescents' self-reports of health risk behavior differently. It is recommended for researchers to familiarize themselves with these threats to validity and to minimize them as much as possible (Brener, Billy, & Grady, 2003, p. 436).
- **Attrition of students most at risk:** students who dropped out were usually those most at risk. Statistically, when high-risk youth drop out, average scores of the

remaining participants will likely be higher; however, practically, it is difficult to reach those young people most in need of the program if they drop out. For example, in a pilot AIDS prevention program in Spain, those lost to follow-up included boys more than girls and more individuals with early sexual experience (Villalbi, 2000). Thus, interventions might not reach those who would potentially most benefit, and follow-up data cannot show if programs would be effective with these populations.

Research on comprehensive school health interventions

To determine what research is available about the effectiveness of comprehensive approaches to promoting health through schools, and particularly Health-Promoting Schools, a total of 14 reviews of multiple studies and 21 primary studies were reviewed (Aldinger, 2005).

The review revealed that:

- Despite the many school health studies cited above, researchers still report insufficient evidence of the feasibility and effectiveness of Health-Promoting Schools. Some articles reported that there is no universally accepted and clear definition of what constitutes a Health-Promoting School (Stewart, Parker, & Gillespie, 2000), and there is no universally accepted definition of or consensus on the criteria by which those schools can be assessed (Lynagh, Perkins, & Schofield, 2002; St Leger & Nutbeam, 2000). Also, studies by some of the same authors concluded that there is currently insufficient evidence in the literature to support the

efficacy and feasibility of implementing an HPS approach (Lynagh, Knight, Schofield, & Paras, 1999; St Leger, 2001).

- There is a lack of research from developing countries, and particularly a scarcity of research on scaling up. As developed countries have gaps in the body of knowledge on school health promotion, it is not surprising that the search yielded very few studies from developing countries. The lack of studies from developing countries might indicate that there is either a lack of research in developing countries or that studies from developing countries are not reported in international and English language journals. A recent article from WHO confirmed the under-representation of research from developing countries in the international literature and the difficulty of conducting research there. The authors note five factors that might underlie a lack of evaluation research from developing countries: poor research production, poor preparation of manuscripts, poor access to scientific literature, poor participation in publication-related decision-making processes, and bias of journals (Langer, Diaz-Olavarrieta, Berdichevsky, & Villar, 2004). A self-published literature review of school health promotion in developing countries (Hubley, 2000), conducted by a researcher at Leeds University in the United Kingdom, points out as part of its “tentative conclusions” that “there are very few studies that investigate the implications of scaling up from the small to large-scale interventions” (“Summary”, no page number).
- There are few evaluations of the full scope of HPS interventions, as it is challenging to evaluate the complexity of Health-Promoting Schools. Although the concept of Health-Promoting Schools combines multiple intervention strategies, often schools

implement only some of the strategies. One study looked at the incorporation of principles of the Ottawa Charter for Health Promotion (discussed on page 29), — healthy school policy, supportive school environment, school community action, developing personal skills, reorienting services—by articles about school-based programs published between 1983 and 1995 that targeted smoking and/or alcohol and/or solar protection. The study found that none of the programs incorporated all five components of the HPS approach. Twenty-two programs (25.6%) incorporated two components, two programs (2.3%) addressed three components, and four programs (4.5%) utilized four of the five components (Lynagh, Schofield, & Sanson-Fisher, 1997). Even if schools implement multiple components of the HPS model, these components are quite complex to assess and likely require a multiple-component study design. Therefore, most reviewed studies have looked only at isolated components, such as health education, or at a few components.

A recent systematic review of school health promotion and the HPS approach also found that none of the schools in 12 controlled before and after studies implemented all the components of the HPS approach. (Researchers conducted the majority of the studies included in the reviews in the United States.) The HPS programs that “were effective in changing young people’s health or health-related behavior were more likely to be complex, multi-factoral and involve activity in more than one domain (curriculum, school environment and community)” (Stewart-Brown, 2006, 17). This study endorsed the HPS approach and confirmed the challenge of implementing and evaluating a comprehensive approach.

Frameworks for this study

There are three underlying frameworks for this study. The first framework is the concept of the Health-Promoting School—the WHO framework that guided the planning and implementation of the interventions in this study. Cheryl Vince Whitman of Health and Human Development Programs (HHD) at Education Development Center, Inc. (EDC) developed the second framework, *Key Factors in Changing Policy and Practice*. This framework describes factors for the process of making changes at systems level. The third framework of success factors for health education programs was already reviewed above (page 21).

The framework of the Health-Promoting School

Schools have offered health education as part of a comprehensive model that includes, besides health education, a healthy environment, health services, and other factors. Major global and national initiatives have fostered this “comprehensive” approach to school health.

At the global level, the concept of Health-Promoting Schools is based on public health theory that builds on the Ottawa Charter of Health Promotion (World Health Organization, 1986). The Ottawa Charter calls for five health promotion “actions” that should be adapted to the local needs and possibilities of individual countries: building healthy public policy, creating supportive environments, strengthening community action, developing personal skills, and reorienting health services. Adapting the Ottawa Charter for use in school environments calls for: school health policy, healthy school

environments, school-community partnerships, life skills education, and school health services.

At the national level, in 1987, Allensworth and Kolbe in the United States proposed a model with eight components that could have complementary, if not synergistic, effects. This model included school health services, school health education, school health environment, integrated school and community health promotion efforts, school physical education, school food service, school counseling, and school health-promotion programs for faculty and staff (Allensworth & Kolbe, 1987).

In 1995, WHO launched its Global School Health Initiative (GSHI) that drew on the Ottawa Charter and the eight-component model by Allensworth and Kolbe. The goal of this initiative is to support schools to become Health-Promoting Schools. WHO's definition of a Health-Promoting School is shown in Figure 1.

Figure 1. Definition of a Health-Promoting School by the World Health Organization

What is a Health-Promoting School?

A Health-Promoting School is one that constantly strengthens its capacity as a healthy setting for living, learning, and working.

A Health-Promoting School:

- Fosters health and learning with all the measures at its disposal.
- Engages health and education officials, teachers, teachers' unions, students, parents, health providers, and community leaders in efforts to make the school a healthy place.
- Strives to provide (1) a healthy environment, (2) school health education, and (3) school health services along with (4) school/community projects and outreach, (5) health promotion programs for staff, (6) nutrition and food safety programs, (7) opportunities for physical education and recreation, and (8) programs for counseling, social support, and mental health promotion.
- Implements policies and practices that respect an individual's well being and dignity, provides multiple opportunities for success, and acknowledges good efforts and intentions as well as personal achievements.
- Strives to improve the health of school personnel, families, and community members as well as pupils; and works with community leaders to help them understand how the community contributes to, or undermines, health and education.

Adapted from: http://www.who.int/school_youth_health/gshi/hps/en/index.html (retrieved October 31, 2006)

In 2000, at the World Education Forum in Dakar, Senegal, WHO, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), and the World Bank came together to support a joint initiative for school health: FRESH—Focusing Resources on Effective School Health (UNESCO, UNICEF, WHO, & World Bank, 2000). This initiative draws on the HPS concept and related concepts and reformulated the major components in a way that all partners supported (Figure 2). Other agencies have since joined this effort. While the terminology is slightly different, WHO views the FRESH framework as equivalent to the HPS concept. Thus, different pieces of literature might describe Health-Promoting Schools as having either eight or four components.

Figure 2. FRESH framework

Core framework for action: four components that should be made available together, in all schools:

- Health-related school policies
- Provision of safe water and sanitation—the essential first steps towards a healthy learning environment
- Skills-based health education
- School-based health and nutrition services

Supporting strategies:

- Effective partnerships between teachers and health workers and between the education and health sectors
- Effective community partnerships
- Pupil awareness and participation

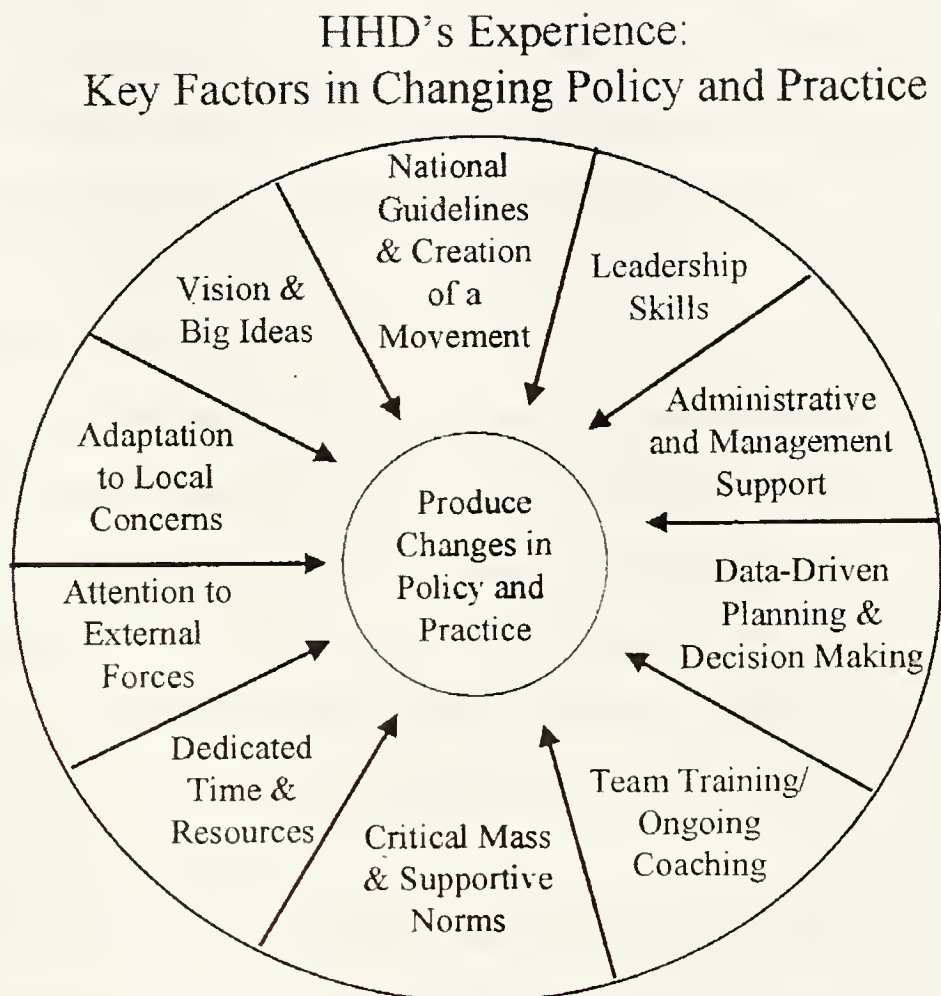
From: (UNESCO et al., 2000)

For diffusing and implementing such concepts as Health-Promoting Schools or FRESH, several factors need to be in place to facilitate change.

A framework for facilitating change

Diffusion, according to Everett Rogers, whose name has become virtually synonymous with the study of diffusion of innovations, “is the process through which an *innovation*, defined as an idea perceived as new, spreads via certain communication channels over time among the members of a social system” (Rogers, 2004, p. 13). One can view Health-Promoting Schools as such an innovation, and to diffuse and implement the HPS project—or to facilitate the adoption of any other new concept—systemic change experts believe that certain critical factors are necessary. The HHD division of EDC works with major sectors and institutions, particularly education and public health, and designs and delivers programs that bring about changes in policies, systems, and everyday practice. The director of HHD, Cheryl Vince Whitman, has identified critical factors to make a difference in creating change at the individual, policymaker and practitioner, and organizational level (Vince Whitman, 1999, 2005) (Figure 3).

Figure 3. Key Factors in Changing Policy and Practice



Revised from Cheryl Vince-Whitman (1996), "HHD's Approach to Changing Policies and Practice in Systems," Education Development Center, Inc., Health and Human Development Programs (HHD) Newton, MA; EDC ©1999 Education Development Center, Inc. All rights reserved. May not be reproduced without permission.

- A clear vision and big idea: A clear vision or big idea is one of the first key factors in the process of changing policy and practice. A vision can be instrumental in successfully motivating education and health policymakers to adopt practices that are more effective. Research has shown that institutions are more likely to embrace big ideas requiring large changes rather than small, incremental changes.

- National and international guidelines and creation of a movement: National guidelines, such as the regulation for quality education in China, or the WHO concept of Health-Promoting Schools, can stimulate and support action. There is little doubt that the presence of national or international policies and guidelines from ministries of education and health or international organizations often sparks the efforts of schools.
- Leadership skills: Leadership provides the inspiration and ability to galvanize and motivate people to achieve a mission and a goal. Without the principal's support, it would often not be possible to achieve the intended outcomes. Leaders' commitment, dedication, support, ability to articulate a vision, and ability to motivate and inspire others is essential. To implement complex ideas, such as Health-Promoting Schools, leadership talent must exist at every level, not just at senior level.
- Administrative and management support: Human and financial capacities are necessary to plan and manage the change process. This includes clarifying roles, responsibilities, and communication channels and making sure that tasks proceed on time and within budget.
- Data-driven planning and decision-making: Data can help program administrators understand health, academic, and behavioral patterns and their underlying risk and protective factors. Data also support program administrators in determining how interventions fit the target population; which financial, human, and other resources they can tap for program

implementation; and organizational properties that affect the readiness to implement. Tracking progress also requires data.

- Team training and ongoing coaching: Training and coaching are important ways to develop capacity within institutions to implement new concepts. Administrators and teachers first need to be familiar with a new concept before they can implement it.
- Critical mass and supportive norms: “A critical mass of people who share supportive norms is necessary for creating new thinking and practices within and across systems. People in groups tend to move toward normative actions ... Until and unless enough staff are trained and committed to implementing research-based practices, it is unrealistic to expect a single teacher or administrator returning home from off-site training to be able to effect change” (2005: 120).
- Dedicated time and resources: A core team must dedicate adequate time to implement new programs. A common reason for failure of new projects is that managers underestimate how much time it will take and overestimate the readiness of their staff and systems to take on the project. It is important to assess realistically how much time an institution will need to move in a new direction and to determine the staff readiness and willingness to engage in the effort.
- Attention to external forces: “More often than not, change occurs as a result of outside influences” (2005: 119). These influences might include national or international guidelines or movements.

- Adaptation to local concerns: Programs might move to settings that are not identical to the original; the cultural diversity of students, the type and setting of school system, and the income level of families might vary from the program's original context. It is, therefore, important to consider how much change a program can undergo without failing to produce the original results. As mentioned above, fidelity is critical to successful outcomes.

All of these factors are important for the process of developing and implementing a sustainable HPS project.

Recently, a renown Australian school health researcher, St Leger (2005), published an article on protocols and guidelines for Health-Promoting Schools, "produced by analyzing research and evaluation experience" (p. 145) as well as by examining practices and initiatives of international organizations such as WHO, the US CDC, and the International Union for Health Promotion and Education (IUHPE). To validate the relevance of the above framework for establishing Health-Promoting Schools, it is useful to compare the elements of St Leger's framework with the elements of the *Key Factors in Changing Policy and Practice* above, referred to as Change Framework in the text below.

In terms of establishing a Health-Promoting School, St Leger starts with "developing a supportive government/local authority policy for Health-Promoting School." This largely corresponds to "national guidelines and movement" in the Change Framework above. St Leger's element of "achieving administrative and senior management support" corresponds to "administrative and management support" and "leadership skills," and St Leger's element of "creating a small group of activists

including teachers, students, parents and community members to lead and coordinate efforts” largely corresponds to “critical mass and supportive norms” and “dedicated time and resources.” The next two elements in St Leger’s framework, “conducting an audit of current Health-Promoting School related actions according to the six essential elements” and “establishing agreed goals and a strategy to achieve them” correspond mostly to “data-driven planning and decision-making.” St Leger’s element of “Developing a Health-Promoting School Charter” corresponds loosely to “Vision or big idea.” St Leger’s element refers to a charter that schools might display in prominent places. Thus, there might be a distinction between the displayed charter and a “big picture,” general vision or more detailed written policies.

St Leger’s element of “Ensuring appropriate staff undertake capacity building programmes and that they have opportunities to put their skills into practice” corresponds to “team training” in the Change Framework. “Celebrating milestones such as the launch of Health-Promoting School Charter” does not have a directly equivalent factor in the Change Framework, though schools might have start-up meetings to celebrate or mark the beginning of the HPS project which could be considered under gaining “Critical mass and supportive norms” in the Change Framework. Further, St Leger adds “Allowing 2 to 3 years to complete specific goals.” This element does not have a specific equivalent in the Change Framework either, but it might fit under “Data-driven planning and decision-making.” St Leger then continues with “Factors for sustaining Health-Promoting Schools”—an element that is not part of the Change Framework. On the other hand, the Change Framework includes two factors that are not part of St Leger’s elements for establishing a Health-Promoting School: “Attention to external forces” and “Adaptation

to local concerns.” “Attention to external forces” might include St Leger’s element of supportive government. “Adaptation to local concerns” might correspond to St Leger’s element of “Conducting an audit” that would help program administrators develop implementation plans according to the local situation.

Thus, for the most part, the two frameworks largely cover the same essential change factors that are important for establishing Health-Promoting Schools. Matching St Leger’s recent research with the previously published Change Framework validates the use of the Change Framework for analyzing Health-Promoting Schools.

Figure 4. Comparison of St Leger’s Protocols and Guidelines for Health-Promoting Schools and Vince Whitman’s Key Factors in Changing Policy and Practice

<i>St Leger’s Protocols and Guidelines for Health-Promoting Schools</i>	<i>Vince Whitman’s Key Factors in Changing Policy and Practice</i>
Developing a supportive government / local authority policy for the HPS project	National guidelines and movement Attention to external forces
Achieving administrative and senior management support	Administrative and management support Leadership skills
Creating a small group of activists including teachers, students, parents and community members to lead and coordinate efforts	Critical mass and supportive norms Dedicated time and resources
Conducting an audit of current HPS-related actions according to the six essential elements	Data-driven planning and decision-making Adaptation to local concerns
Establishing agreed goals and a strategy to	Data-driven planning and decision-making

achieve them	
Developing a Health-Promoting School Charter	Vision or big idea
Ensuring appropriate staff undertake capacity building programs and that they have opportunities to put their skills into practice	Team training
Celebrating milestones (e.g., the launch of the HPS Charter)	(Critical mass and supportive norms)
Allowing 2 to 3 years to complete specific goals	(Data-driven planning and decision-making)

This study utilizes the above frameworks for theoretical analysis of the processes of implementing the HPS project in Zhejiang Province.

The next chapter gives a cultural and programmatic introduction to the HPS project in Zhejiang Province.

Chapter 2. Programmatic and Cultural Introduction

Introduction to the Zhejiang Province HPS Project

Introduction to Zhejiang Province, China

Located in a subtropical zone on the Yangtze River delta on the southeastern coast of China, Zhejiang province is known as “one of the cradles of ancient Chinese civilization” (Zhejiang Government, 2003). The region also has a reputation at home and abroad as a land of fish and rice, a capital of silk and tea, a place of rich cultural relics, and a paradise for tourists. Numerous famous scholars and figures in history have lived in Zhejiang, and many outstanding personalities of philosophy, politics, military, science and culture came from this province (Zhejiang Government, 2003).

In addition to its rich history, and despite its status as one of the smallest of 22 provinces, Zhejiang is also one of the People’s Republic of China’s most prosperous regions; it entered the twenty-first century with a strong economy and ambitious growth and development objectives. The province’s progressive climate of rapid economic and social development provided the backdrop for the HPS project. The pages that follow provide a snapshot of Zhejiang’s current demographic and geographic, education, and economic and social context.

At the end of 2004, the year in which our study team first visited the school sites, the population of the province was more than 47 million (China Internet Information Center, 2006)

, with 53 ethnic minority groups including the She (Zhejiang Online, 2005)(Zhejiang Online, 2005), as well as the Han, Hui, Manchu, and Miao (China Daily, 2006). Dispersed over a total land area of 101,800 sq km (70% hills, 10% water, 20% arable land) (Zhejiang Government, 2003), the diverse population speaks a range of dialects including Wu, Huizhou, and Min Nan (SIL International, 2006). Eleven cities or prefectures, including the capital, Hangzhou—home of 6 million people and with its famous West Lake—are under the direct jurisdiction of the province and are further divided into 36 counties, 22 county-level cities, and 32 urban districts (Zhejiang Online, 2005). Zhejiang also has the largest number of islands in China (China Internet Information Center, 2006).

The officials of Zhejiang province emphasize that education is a top priority for its populace. According to a 2003 briefing on its Web site, “Universal nine-year compulsory education was in the main established and near-elimination of illiteracy among young people and adults was also achieved in 1997, three years ahead of schedule. In 2002, the rate of junior high school graduates going on to senior high school is 84%. In 2002, the admission rate of university entrance examination in Zhejiang rose from 31.8% in 1997 to 73%, and the proportion of students receiving higher education grew from 7.9% to 20%” (Zhejiang Government, 2003). According to the People’s Republic of China’s online report, *Zhejiang 2004 - The Year in Review*, “at the end of 2004, the number of students enrolled in postgraduate schools and institutions of higher learning during the year stood at 8,000 and 195,600. The registered number of students in special schools for the handicapped was 14,200 at the year-end” (China Internet Information Center, 2006).

Complementing these educational goals, Zhejiang officials appear to have a long-term vision for the implementation of an impressive array of economic and social reforms designed to result in an improved standard of living (Zhejiang Government, 2003). Characterized as possessing "...a high degree of opening up to the outside world" and a "...favorable investment climate" (Zhejiang Online, 2005), Zhejiang appeared to be in the midst of a dynamic period of growth and change during the study team's visits. This overview of the province's current landscape concludes with a series of excerpts from the government's Web site (Zhejiang Government, 2003), in accordance with the research team's determination to provide information in the authentic voice and from the perspective of those studied:

Zhejiang province upholds the basic theory, line, program and experience of the Party in the new period, emancipating the mind and seeking truth from facts, keeping pace with the times while fostering the "Zhejiang Spirit," featuring unceasingly strive, firm and indomitable stance, enterprising spirit and stress of actual results, Zhejiang province has blazed a road of development with its characteristics in the process of reform and opening up.

First, the economic development has entered the middle and later stage of industrialization. Zhejiang had long been a province mainly depended on agriculture. After 20 years of development since the reform and opening up, Zhejiang is now a province of strong economy with industry as the guiding sector. From 1978 to 2002, its GDP achieved an annual increase of 13%, rising from RMB12.4 billion [about US\$1.6 billion] to RMB767 billion [about US\$97 billion], which ranked from 12th to 4th place among all China's provinces. ...

Second, fundamental changes have taken place in urban and rural infrastructure construction. The backwardness of infrastructure has long limited the development of Zhejiang province. Since the beginning of the 1990s, Zhejiang started with the reform in investment and finance mechanism, and has publicized several policies in certain areas in succession. ... Zhejiang mobilizes strengths of all fields in a joint effort to develop infrastructure by deploying various ways of financing, including the sell of land with compensated payment, and funding through getting listed abroad. In recent years in particular, on seizing the opportunity of stimulating the domestic demand while carrying our proactive fiscal policy, Zhejiang province has stepped up its efforts in urban and rural infrastructure, giving priority to the implementation of six "One Thousand"

projects. [These include: building standard seawall, standard dikes high-grade roads, generating electricity, and an airport with a high handling capacity, and standard farmlands.] ...

Third, social undertakings are witnessing comprehensive improvement. Accelerating the reform in science and technology system, Zhejiang is relatively early in China to carry out reforms in scientific research institutes. ... Propelling the combination of production, study and research in an all-round way, Zhejiang province has devoted major efforts to develop private science and technology enterprises Zhejiang also ranked 7th in China in terms of the comprehensive strength of science and technology. It is also the leading province to put forward the mission of building a province strong in culture. Culture undertakings are flourishing day by day, and culture industry is developing rapidly. The project to make radio and television services universal in every village and households has been by and large fulfilled. Works in fields like public health, sports, family planning, and environmental protection all have strengthened unceasingly. The deteriorating trend in ecological environment has been on the whole restrained initially.

Fourth, people's living standards have made historical leap to being well-off. According to the 16 monitoring standards issued in "Basic Criterion for Comparatively well-off Standard of Living in China" by State Statistics Bureau, Zhejiang province met the criterion in full-scale as early as in 1999. ... 45.9% residents have installed telephones, and 31.4% for mobile phones. The province has 3.15 million Internet users, ... In 2001, Zhejiang took the lead in China to set up the minimum standard of living guarantee system for both urban and rural residents according to law.

Zhejiang Province plans to double its per capita GDP of 2000 by 2010 and redouble that by 2020, to reach the level of middle ranking developed countries. The next 5 years are the crucial period for Zhejiang province to accomplish the modernization ahead of time. The major target of economic and social development is to speed up building a well-off society in an all-round way, so as to lay a solid foundation for Zhejiang province to basically accomplish modernization. There are four aspects: first, economic development should scale a new height with notable improvement in quality and standard; second, the democratic and legal system should be increasingly improved; third, an all-around and sustainable development of society should be further strengthened; fourth, the residents' income should make a steady increase, with their living quality improved remarkably.

This climate of rapid economic and social development provided the backdrop for the HPS project in Zhejiang Province.

Health-Promoting Schools in Zhejiang Province

In response to the GSHI, with regional guidelines developed by the WHO Western Pacific Regional Office (WPRO), and with endorsement of the national Ministries of Health and Education, some of China's health and education agencies began implementing the HPS concept in selected schools. In 1996, an HPS pilot project was established that successfully reduced parasitic helminth infections in rural schools (Xu et al., 2000). This was followed in 1998 and 2000 by two HPS projects in Zhejiang Province that successfully addressed tobacco use prevention and nutrition, respectively (Ma et al., 2002) (Xia et al., 2004). A third project in Zhejiang Province used materials from UNICEF to address school-based injury prevention.

Based on the positive experiences of the pilot projects, officials of Zhejiang Province decided to systematically scale up the HPS project over the entire province, partially in an effort to achieve the government-mandated "quality education" that focuses not only on academic achievement but on the whole child. With joint endorsement of the Provincial Departments of Education and Health, Zhejiang Province launched an effort in 2003 to expand the development of HPS to all 11 prefectures of the province. The program started with a training workshop in Hangzhou in October 2003 for headmasters and teacher representatives of 51 schools, health educators from the CDC, and education officers of the prefectures. National and international experts spoke on selected topics including psychosocial environment, dental health, violence and injury prevention, nutrition, tobacco use, parasite control, and skill-based health education. Each

participating school identified a prevalent health issue as its entry point to establish the development of Health-Promoting Schools.

My Role in this Project

My participation in this project grew out of a series of events, starting with me writing the document *Healthy Nutrition: An Essential Element of a Health-Promoting School* for the *WHO Information Series on School Health* (World Health Organization, 1998) during my WHO internship in 1997 with the GSHI. After I joined EDC as a staff member of the HHD division, the Chinese government asked WHO for a pilot study on implementing interventions based on this document. WHO asked EDC, as a WHO Collaborating Center and longstanding partner in promoting the development of Health-Promoting Schools, to work with WHO in support of this project. HHD assigned me to work on this effort and its subsequent scaling up.

Consequently, from April 2000 through May 2002, I served as a consultant to the China/WHO School Nutrition Project in Zhejiang Province on behalf of WHO and as a representative of my employer. This project was successful in establishing Health-Promoting Schools in six pilot schools with approximately 7,500 students and their families and about 800 teachers and school staff. Results showed improved knowledge, attitudes, and behavior in students, parents, and school staff (Glasauer, Aldinger, Yu, Xia, & Tang, 2003; Xia et al., 2004).

Based on the success of this project, as well as two similar pilot projects that focused on tobacco prevention and injury prevention, officials from Zhejiang Province invited us in March 2003 for a meeting to start planning the scaling-up effort. From

October 2003 through November 2005, Zhejiang launched the first phase of scaling up the HPS project. I continued to be part of this project as a consultant on behalf of WHO and EDC, and I was one of the speakers during the launching workshop in October 2003 in Hangzhou. From 2003 to 2005, our team from WHO and EDC studied the project's implementation in nine schools.

Anticipated contribution of this study

This study provided a unique opportunity to add a qualitative evaluation component to the ongoing HPS project. WHO asked Zhejiang Province to conduct a series of surveys to gather quantitative data for program planning and evaluation and to measure changes in knowledge, attitudes, and behavior. These surveys included the Global School-based Student Health Survey (GSHS) for 13- to 15-year-olds, Evaluation Index for Health-Promoting Schools Bronze Awards (from WHO/WPRO), WHO Psycho-Social Environment Profile (PSE), and a content-related questionnaire from former pilot projects in China. As a complement to these quantitative measures, this study assessed qualitatively the process and procedures of implementing the HPS project, and it examined participants' experience with the project. Especially in an effort to replicate this and similar projects, this research could contribute to the understanding of how schools plan and implement interventions for the various components of Health-Promoting Schools, how they make decisions, and how it affects illustrative samples of participating individuals. Numerical data cannot capture and convey this information. Therefore, this qualitative component could make a unique contribution by telling the story of developing Health-Promoting Schools in a way that numbers cannot.

In addition, this study could make an important contribution by filling the gaps in research regarding Health-Promoting Schools. This study could provide more evidence about the feasibility and effectiveness of Health-Promoting Schools—particularly in a developing country—and by contributing a qualitative approach to evaluating the complexity of Health-Promoting Schools. In this way, the study builds on current research on the qualities of effective programs as well as the challenges that influence effectiveness and examines, in depth, how Chinese schools implement the comprehensive HPS concept.

Cultural and Unique Aspects of this Study

There are many unique aspects about this project to consider when reading and interpreting the data including culture, language interpretation, VIP status, school system, and political agendas.

Culture

One of the first important considerations is the cultural difference. China is a collectivistic culture. Collectivistic cultures emphasize the “we” identity, group rights, and in-group-oriented needs over individual rights. On the other hand, individualistic cultures, such as the United States, emphasize the importance of individual identity over group identity, and value individual needs and personal autonomy over groups needs (Ting-Toomey, 1999, p. 67). Individualistic cultures tend to prefer direct talk, person-oriented communication, and talkativeness while collectivistic cultures tend to prefer

indirect talk, status-oriented communication, and silence. Direct talk reveals speakers' intentions in a forthright tone of voice while indirect talk, which is the common mode of talk in China, tends to camouflage speakers' intentions in a more nuanced tone of voice (Ting-Toomey, 1999, p. 103).

Cultures also differ considerably in the extent to which they accept unequal distribution of power. High power distance cultures, such as China, have considerable power inequality (Irwin, 1996, p. 32) and emphasize seniority, age, rank, titles, and formality. In contrast, low power distance cultures, such as the United States, emphasize equal power distance, individual credibility, and informality (Ting-Toomey, 1999, p. 70).

Chinese people value the family as the basic unit of society and a model for society as a whole; individuals strive for harmony, and they place paramount importance and high value on education and selected virtues including perseverance without complaint, hard work, modesty, and humility (Irwin, 1996, p. 38). Thus, preservation of harmony and face is of high value in the Chinese and other Asian cultures.

In addition to the differences between the Chinese and Western cultures, a further cultural factor is my German upbringing and values. This adds another cultural dimension to this study in my role as the participant researcher. In general, I often experience that I am more meticulous, accurate, efficient, and organized but also more pessimistic than Americans. I think that the German culture is closer on the continuum to the collectivistic culture than is the American culture. A world values survey showed that there is no difference in the feeling of happiness between people in Germany and in China, but people in the US indicated higher values for happiness than people in both China and Germany. People in the US also indicated a slightly higher satisfaction with

life than people in Germany, who are slightly more satisfied than people in China (World Values Survey Association, 2006). Inevitably, my interpretations will come from a perspective that my German background has influenced.

Language interpretation

Translation and interpretation are very critical factors to consider when assessing these data because this research relied on an interpreter in almost every case to get any meaningful data. Interpretation means that someone listens to the comments of others and summarizes those comments, perhaps adding his/her own comments to help others understand the conversation or discussion. In contrast, translation means that somebody takes a document written in one language and reproduces it in another language. Someone who listens to a conversation cannot translate it on the spot, but can only reasonably interpret the content of the discussion. This study had a different interpreter for each of the three phases of data collection, and a fourth person translated the written responses.

As data collection depended on an interpreter, it was usually not possible to get real quotes. Only in a few instances, the translators appear to have translated important sentences verbatim. Usually, it was not feasible nor time-efficient to have people stop after 1 to 2 sentences to get a verbatim translation—which might not have been possible anyway since different languages use different expressions that do not always have exact translations. Instead, respondents finished their thoughts, and then the interpreter gave a summary translation that necessarily missed some of the nuances of the original response and might have included some of the initial interpretation of the interpreter.

VIP status

There were many examples of the importance placed on this work by provincial and local officials. Being the sole visitor during my first round of data collection, and traveling in a team with two international colleagues during my second and third round of data collection, I was often the center of attention and many people catered to me. They were always very considerate and helpful, and they tried to anticipate all of my needs. There was always a driver and a vehicle available for our team to go anywhere we needed or wanted to go, we were the guests of honor at all the banquets we attended, and many newspaper and TV stations talked to us and took pictures of our school visits.

An article by Tianping (2003) explains that the main sources for a school's educational funds come from the education department. Schools are encouraged to strive to influence governments in policymaking through actions that include contacting "experts, scholars, and other authoritative persons so as to make them influence governments' decisions and obtain governments' support" (p. 188). Thus, our visit as experts likely helped the schools influence the government to gain support for their health promotion and other efforts. The article also points out the importance of the school's relation with the media. Media can play a role in starting a public opinion and in "propagating" schools.

School system

The educational system in China has a much more authoritarian structure than Western educational systems. The *World Education Encyclopedia* (Marlow-Ferguson & Lopez, 2002) provides some valuable background:

The Chinese have always regarded education as a tool for strengthening the country instead of cultivating individuals, which dictates that learning for the sake of knowledge is not enough. Students are expected to develop, first, as patriotic Chinese with strong morals, then as individuals with the necessary skills to serve the country and people. Throughout the educational system, the ideal of a well-rounded, cultured person with a strong socialist consciousness is deeply embedded. . . . Although the quality of schools varies widely in China, there are standard textbooks and curricula for all subjects at all levels. The textbooks convey a strong nationalistic message in content. Teaching style emphasizes the authority of the teacher and demands great amounts of memorization and recitation. (p. 238)

Despite the fact that teachers experience the ups and downs and receive low pay for their job, they enjoy unquestionable authority when they deliver knowledge to their students. The universal assumption in Chinese society is that the teacher tells the single and absolute truth, and the job of the students is to absorb the knowledge conveyed by the teacher without question. While some subjects (such as English, geometry, or algebra) provide more opportunities for students to practice or to drill, the structure of the lessons, their pace, and the nature of questioning are all determined by the teachers, who control the nature of classroom interactions. The most common experience for students is to go through the forty-five minute period without talking once, without being called on individually, or without asking a question. Students are taught that important knowledge comes from teachers and textbooks, that learning involves listening, thinking, and silent practice; and that the knowledge espoused by teachers and textbooks is not to be challenged, despite the lack of connection between course material and the immediate lives of the students. (p. 254)

This description of the Chinese school system in which students are passive is in contrast to the WHO recommendation for skills-based health education in which students actively engage in participatory activities. The absolute authority of the teacher in the Chinese school system is in contrast to democratic values.

According to the *World Education Encyclopedia* (Marlow-Ferguson & Lopez, 2002),

Key schools are schools distinguished from ordinary schools by their academic reputation and are generally allocated more resources by the state. Their original purpose was to quicken the training of highly needed talent for China's modernization, but another purpose was to set up exemplary schools to improve teaching in all schools (p. 244).

Traditionally, primary and secondary schools in China place a heavy study load on students in the name of high exam marks. In some instances, students stay at their schools for 12 hours per day, and primary school students had to complete 33 pages of mathematical exercises and 8 essays during the labor holiday. However, the Ministry of Education has realized the shortcomings of its educational system and has issued documents that call for reducing student workload and examination-oriented education and increasing the quality of education with the objective to educate students in an all-round way, including morally, intellectually, practically, and physically (Wang, 2003).

Understanding what schools in China regularly do is important to put the HPS effort into context. For example, as documented in pictures that predate the HPS effort, schools regularly send representatives into communities to talk to and educate people. Some schools also already addressed health issues, such as nutrition or psychological health, prior to becoming a Health-Promoting School.

Political agendas

Each of the participating agencies and entities has a political agenda that is important to consider. WHO's goal is to develop the capacity of the provincial Health Education Institute (HEI); research is okay for WHO as long it benefits capacity building.

WHO does not want to publish anything that could potentially jeopardize the goals and objectives of the Chinese colleagues and their programs. The presumed goal of the HEI of Zhejiang Province is to show successful results for establishing Health-Promoting Schools and to gain further support. The goal of EDC is to conduct quality research and training and to share learnings and experiences. My personal goal was to gain competence in conducting qualitative studies, to make a unique contribution to the field of school health, and to use the data collected for this study also for further professional work and publications.

In summary, this study builds on the link between education and health, and on the success factors and challenges that previous studies of school-based interventions identified. It examines the HPS model and the processes that are needed to facilitate change to put this model. Since we conducted this study in China, factors such as culture, interpretation, VIP status, school system, and political agendas play an important role. This study will help fill the identified gap in research on the feasibility and effectiveness of Health-Promoting Schools, respond to the lack of studies from developing countries, and advance the body of knowledge on how to evaluate the complexity of Health-Promoting Schools by using a qualitative approach.

The next chapter describes the research methodology and the research schools and interviewees.

Chapter 3. Research Methodology

Methodological frameworks

This is a descriptive study, based on a case study model, and using illustrative examples of changes in individual lives. It focuses on the process of implementing Health-Promoting Schools in Zhejiang Province, China, in the context of a WHO project. Conceptually, this study falls into the field of institutional ethnography and used grounded theory to guide data analysis, as well as a three-part theoretical framework.

Institutional ethnography

This study falls into what Smith called institutional ethnography, a process in which interviewing is part of an approach to investigate organizational and institutional processes rather than informants' inner experiences (DeVault & McCoy, 2002). An institution, in this case, does not refer to a particular type of organization, but to coordinated and intersecting work processes, such as health care, or, in this case, Health-Promoting Schools. The purpose of this research is to discover and describe processes of "how it happens" based on putting together an integrated view from the otherwise truncated accounts of each informant (DeVault & McCoy, 2002).

Grounded theory

Grounded theory forms the basis of the analytical approach. This means that “theory must emerge or be developed from the data, and not from predetermined hypotheses or formulations” (Chamberlain, 1999). This approach provided an opportunity to look at the data “with fresh eyes” and not by initially superimposing the HPS framework or the Change Framework. While Western or industrialized countries developed both of these models, analyzing data from a developing country provided an opportunity to generate new insights by not imposing these models on the data. It should, however, be noted that the Western HPS model influenced the work in China, and we used the HPS framework and a planning model to structure the interview questions. It is also important to note that my status as a participant researcher—one with 10 years of experience working with the HPS framework—and my role as an HPS project consultant, meant that I would likely not have an entirely objective view.

Nevertheless, the Grounded Theory methodology provided an opportunity to generate theory that is grounded in data (Strauss & Corbin, 1998). The data were analyzed by original coding and not by going back to the general “preliminary findings” presented at the *Summing-up Conference on Scaling-up Development of Health-Promoting Schools in Zhejiang, Province*. A later stage of the analysis could compare the findings from original coding with these preliminary findings.

Three-part theoretical framework

Data analysis also included how the data fit a three-part theoretical framework, consisting of the frameworks described in Chapter 1: the Change Framework, the framework of Health-Promoting Schools, and success factors of school health programs.

Establishing a research protocol

In late January/early February 2004, I inquired with my colleague at WHO Headquarters, Department of Chronic Diseases and Health Promotion, and, through our Shanghai-based WHO consultant, with the Provincial HEI of Zhejiang Province if I could conduct my doctoral research as part of the project “Scaling-up the successful effort of Health-Promoting Schools in Zhejiang Province” (launched in October 2003). Both organizations and the director of HHD where I work agreed. WHO suggested adding a first round of school visits in May/June 2004.

Following the approval of my doctoral research, I developed a draft dissertation proposal and a protocol for the WHO-EDC research team to use during our school visits. The protocol contained questions for interviews with school administrators, teachers and other implementers, students, and parents, respectively (Appendix 1). EDC’s Institutional Review Board (IRB) reviewed the protocol and notified me on April 19, 2004 that the protocol met the criteria for exemption from expedited or full IRB review because the research was a normal educational practice conducted in an established educational setting. The IRB added that I was still responsible for ensuring proper protections for human subjects. Upon reviewing my protocol and accompanying memo, the head of the

Human Subjects Committee at Lesley University informed me on May 7, 2004, that they waived the need for the IRB to review my research. Thus, I received clearance from both Institutional Review Boards prior to conducting this research.

At the request of the HEI, we got the protocol for the first set of school visits translated into Chinese. Our Chinese WHO consultant suggested that we translate the protocol "...for local colleagues and school persons to be ready for the visit, especially for the questions" (Personal communication, April 22, 2004) and the colleague at WHO agreed that it, "...seems like a translated copy could increase the odds of achieving a common understanding of at least the initial questions. Perhaps if both the interpreter and the interviewer clearly understand what is initially being asked, the quality of their responses will be high" (Personal communication, April 4, 2004).

Consequently, we sent the protocol to our Chinese consultant on May 5, 2004 to pass it on to the HEI. For the second and third round of data collection, we followed the same procedure, and we had the protocol questions (Appendices 2 and 3) translated into Chinese and sent them via our Chinese consultant to the HEI ahead of time.

The questions were quite structured and started by asking about participants' understanding of the HPS framework. In the first round, which focused on program planning, we asked questions about the process schools followed in selecting the project entry point, establishing a HPS working group and a work plan, and implementing initial interventions. For the second round, which focused on program implementation, we asked the schools to tell us about the interventions they implemented and to describe how they chose the interventions. For the third round, which focused on program assessment, we asked schools to tell us which assessments or evaluations they conducted, to describe

the most important positive outcome of the project and how it came about, and to identify the changes they made in their personal lives. In all three rounds, our questions included inquiries about challenges and the HPS concept, and provided opportunities for comments.

For the second and third rounds, we distributed the questions in writing, in Chinese, to the participants at the beginning of the group interview and asked them to jot down their answers for a few minutes. We anticipated that this would enable them to think about the questions and formulate their answers before we interviewed them so that they would be better prepared to respond to our interview questions. We could also collect their written responses, adding information not expressed in the group interview.

For the third round, following the suggestion of my new committee member, we made the protocol more conversational. We tried to elicit stories by asking participants to tell us about the most important positive outcome or change and report how it was before, how it was different, and what had changed to bring this about. However, I realized that I was not able to use the conversational style very well during the interviews, and I returned to the question-and-answer style, though we did get more stories in the third round. It was more challenging to follow the questionnaire in this round, as respondents' answers did not necessarily address the specific questions that we asked. During this round, asking for written answers felt "distant" for me; it felt like giving an exam.

Data collection

Data collection took place during three separate visits to Zhejiang Province between June 2004 and November 2005. Each time, our research team was hosted by the

HEI of Zhejiang Province. The HEI provided, among other things, transportation and one or more staff members to accompany us.

The HEI chose the schools. For the first round of data collection, we asked for one former pilot school, one “new school” that joined the project in October 2003 from a resource-poor area and one from a resource-rich area. For the following two rounds of data collection we asked for at least one school from a resource-poor area. The HEI asked schools to apply for this opportunity, and selected the schools.

Each round of data collection included four interviews in each of three schools in Zhejiang Province. Each interview with one of the target groups was approximately 1-hour. However, during the first round of data collection, the first interview with a principal lasted at least 1.5 hours, and the last interview with teachers lasted only 45 minutes, based on time constraints in the school schedule.

The schools chose the interviewees, based on the guidance in the protocol:

- 1–2 school administrators (e.g., principal, vice principal)
- 4–6 teachers (from different subject areas, including health) and/or other implementers such as school doctor/nurse*
- 4–6 students (from different grade levels)*
- 4–6 parents (from different socio-economic backgrounds)*

* consisting of a mixture of males and females

Additional people—from WHO, the CDC, the school, and sometimes from local government and media—were present during all of the interviews. Most additional people were present during the interviews of the school administrators. The additional participants left and joined the interview sessions at various times, so the number of

people in the room was not constant. This was also the case during the second and third round of data gathering, though in some instances to a lesser extent. Understandably, at the beginning of the interviews, the teacher, parent, and student participants appeared a bit tense. Once the interviews began, however, the respondents seemed to enjoy participating and the tension quickly dissipated.

A different interpreter assisted on each of these three visits, also arranged by the HEI. None of the three interpreters for this data collection had ever heard about Health-Promoting Schools before and they found this work very interesting and informative. Prior to the interviews, we met with each interpreter and shared some background on the project, HPS documents, and the protocol and instructions for the interviews. At the beginning of each interview, and as part of the protocol, the interpreter mentioned that we were conducting the interviews to gather the participants' experiences and opinions in order to strengthen the implementation of the HPS project. The interpreter stressed that each participant's opinion was important, that there were no right or wrong answers, that participants should feel comfortable expressing their ideas about the topics discussed, and that we would report their answers anonymously. Interviewees agreed to have their interviews tape-recorded—with the disclaimer that we would only transcribe the English parts of the interviews.

First round of data collection

For the first round of data collection, which focused on *program planning*, the WHO-EDC team visited Zhejiang Province from May 30 through June 11, 2004. During that time, we visited 10 schools in six cities, including one mobilization meeting and one

start-up evening. During the first week, we visited schools for approximately 2-hour long orientation meetings with formal presentations and tours of the schools. Since these visits were not part of this study protocol, these data were not included in this study and considered a supplementary source on which to draw, as needed. During the second week, our team conducted four 1-hour group interviews in each of three schools, took part in a start-up meeting, and visited a resource-poor school. The interviews from these visits are part of this study. In the first school, we needed to make many changes to the questions on the protocol, and we omitted some questions because there were too many for the time allotted. For example, we did not ask participants to draw a “before and after” picture for the HPS project.

During both weeks, representatives of the provincial HEI and municipal CDC joined our team. During the first week, the school health team leader of WHO headquarters and the Chinese WHO consultant were also part of the team, but during the second week, when we conducted the group interviews, I was the only foreigner on the team.

Our interpreter, a woman in her forties, was an associate professor for English at Zhejiang University. According to her business card, she was also a deputy director for the State Center of China for Scrutinizing Foreign Language Teaching Periodicals, and a researcher with the Research Institute of Zhejiang Province University for Foreign Language Teaching Periodicals. An interpreter who works at the TV station in Hangzhou recruited this interpreter. This interpreter was very competent, but also had a very strong personality and was sometimes very outspoken.

Second round of data collection

For the second round of data gathering, which focused on *program implementation*, the WHO-EDC team visited Zhejiang Province from November 18 until 28, 2004. Prior to this visit, the Chinese WHO consultant informed us that it would be “very inconvenient” to go back to the same schools, as initially planned. Consequently, we agreed to visit different schools that were in the same cohort. Our team visited six schools in three cities. In three of these schools, we conducted four 1-hour interviews with school administrators, teachers, students, and parents, respectively; we briefly visited the other three schools. The interviews from the three school visits are part of this study. Following a suggestion by the WHO school health leader, we distributed the interview questions in writing in Chinese at the beginning of each meeting and asked participants to jot down their thoughts on the questions for about 10 minutes before the interviews began. At the end of the session, we collected the responses.

Representatives of the HEI and CDC accompanied our team, which included the leader of the WHO School Health Initiative and the Chinese WHO consultant. The interpreter was a young man, probably in his thirties, who was a doctoral student at a university in the United Kingdom. He was doing psychological research on the development of children. According to his business card, he had an M.D. and MSC degree and was an Associate Chief Psychiatrist and Deputy Director at a Zhejiang provincial hospital.

Third round of data collection

For the third round of data gathering, which focused on *program assessment*, the WHO-EDC team visited Zhejiang Province from November 13 until 23, 2005. During that time, we visited three schools in three different cities and conducted four 1-hour interviews at each of these schools with school administrators, teachers, students, and parents, respectively. Like the year before, we distributed the interview questions in writing in Chinese at the beginning of each meeting and asked participants to jot down their thoughts on the questions. At the end of the session, we collected these responses. Since collecting the written responses took about 10 to 15 minutes, we dropped the questions on the HPS concept during the interviews with the school administrators. In School 7, we started with the assessment questions, but did not seem to get many specific answers. Interviewees seemed to become confused when we asked them about the GSHS and the PSE. In School 8, we did not collect written responses from children because the questions seemed too advanced for elementary school students, 14 students were present, and we did not have enough handouts left. During this round, we did not visit any schools other than those in which we conducted the interviews that are part of this study.

Representatives of the HEI and local CDC accompanied our team, which included the leader of the WHO School Health Initiative and our Chinese WHO consultant. The interpreter for the school interviews was a young woman in her twenties from the School of Management at Zhejiang University. She was the owner of a clothes shop at Zhejiang University, looking for employment at an international company.

After a week of school visits, we attended the *Summing-up Conference on Scaling-up Development of Health-Promoting Schools in Zhejiang, Province* in

Hangzhou, where I gave a presentation on Preliminary Findings from Group Interviews. Representatives from all participating schools attended this conference.

Description of the research schools and interviewees

This section provides demographic descriptions of the nine schools that participated in the study. At the end of this section, Figure 5 (page 71) provides a summary of the demographic characteristics. Chapter 9 (page 349) presents additional information about the characteristics of each school, along with interpretations of data.

First round of data collection

During the first round of data gathering, we conducted group interviews in three schools in Zhejiang Province on June 4, June 7, and June 8–9, 2004.

School 1, a former pilot school, was an urban elementary school with a 100-year history that received the Bronze Medal as a Health-Promoting School in May 2002 (according to standards of WHO/WPRO) as part of the pilot project of establishing Health-Promoting Schools with a focus on nutrition. This school had approximately 1,300 students and 66 employees. We interviewed the principal (female) who was also responsible for teaching morality. The secretary of the Communist Party (male), who also taught morality, sat in at the interview but did not provide answers to the interview questions. (We learned during this visit that the vice principal in each school and vice president of each company and agency was usually a secretary of the Communist Party, responsible for teaching and following morality and party doctrine.)

We interviewed 7 teachers, including: a female first grade teacher who was in charge of morality education and life, a male fourth grade physical education teacher, a female sixth grade English teacher, a female sixth grade Chinese language teacher, a female professional nurse, a male researcher who was the head of the research project at the school, and a female mathematics teacher who joined later. We interviewed 7 students: a boy from Grade 2, a boy from Grade 3, two boys from Grade 4, two girls from Grade 5, and a girl from Grade 6. We also interviewed 6 mothers whose children were students in Grade 2 ($n = 3$), Grade 4 ($n = 2$), and Grade 5 ($n = 1$).

School 2 was a suburban school in a resource-poor area. This was a middle school with only a 2-year history, associated with a Normal College. The school had approximately 1,100 students in 24 classes at the time of the interview, but planned to have 12 additional classes and 600 more students starting in the next semester. We interviewed the principal and vice principal (both male). The vice principal was also the manager of the school canteen. We interviewed 6 teachers, including: a female who had just graduated from university and taught Grade Senior I mathematics, a male who used to teach mathematics but was now in charge of students' work and was the leader of the League of the Communist Party, but not teaching, a male Grade Senior II biology teacher, and a female Grade Senior I physics teacher. Later in the interview, a male English teacher who was the head of the HPS committee and a female physical education teacher joined us. We also interviewed a group of 5 students. Only one parent came for the parent interview—a mother who worked in the hospital and whose son was a student in Grade Senior I.

School 3 was a suburban, resource-rich school. Listed in 1978 as one of the key high schools in Zhejiang province, in 1995 the government selected School 3 as a first-class key high school. The school had 36 classes with approximately 1,800 students. We first interviewed the principal and vice principal (both male). The principal used to be a teacher of biology but now only gave lectures on biology and sometimes about philosophy. The vice principal was a teacher of morality education. We then interviewed 2 mothers of daughters. One of the daughters, a Grade Senior I student, was a student leader; the other daughter was a Grade Senior III student. We interviewed 6 students including 1 male Grade Senior I student, 1 female Grade Senior I student (the daughter of one of the mothers we interviewed), and 2 male and 2 female Grade Senior II students. The five teachers we interviewed included the male head of the physical education department who taught all grade levels (Senior I–III), a female psychologist, a female Chinese language teacher for Senior II, a female school doctor, and a female chemistry teacher who was also in charge of students' work.

Second round of data collection

During the second round of data gathering, we conducted group interviews in three schools in Zhejiang Province on November 22, November 24, and November 25, 2004.

School 4, established seven years ago in a coastline city, was an urban middle school with about 1,600 students of which 1,000 lived in the school's dormitories. The school had 1,000 staff. We interviewed the principal, vice principal, and director of administration, who were all male. The vice principal was responsible for health

promotion. During the interview, approximately 13 additional people were present, including the WHO school health leader and WHO consultant, three HEI representatives, and representatives from the municipal Ministry of Education, Ministry of Public Health, and the municipal CDC. Then we interviewed 6 teachers: 2 male athletics/physical education teachers, a male mathematics teacher, a female sociology teacher, a female English teacher, and a female school nurse. Two WHO and two HEI representatives were in the room at the beginning of the interview. Then we interviewed 7 students: a male and a female in Grade 1, 2 females in Grade 2, and 2 females and 1 male in Grade 3. We also interviewed 4 parents and 1 grandparent; these participants included 2 mothers who had a child in Grade 1, 2 fathers who had a child in Grade 2, and a grandfather, who was a private business owner, whose granddaughter was in Grade 1.

School 5 was an urban experimental junior high school, located on an island. (Experimental school means that they are experimenting with using new methods.) Established in 2000, this school had approximately 950 students in 19 classes, as well as 80 faculty members. We interviewed 2 school administrators: the female principal of the school (who gave most of the answers) and the male vice principal who was also the vice secretary and the director of behavior/ethical/moral education. During the interview, there were about 15 people in the room, including 4 students who were health ambassadors. Then we interviewed seven 13- to 15-year-old students. This school started at Grade 7, so the first grade of this school was equivalent to Grade 7, the second grade was equivalent to Grade 8, and the third grade was equivalent to Grade 9. Of the interviewees 2 female students were in Senior Grade 1, 2 males and 1 female were in Senior Grade 2, and 1 male and 1 female were in Senior Grade 3. We also interviewed 7 teachers: 1 male and 1

female Senior Grade 1 math teacher, 1 female Senior Grade 2 sociology teacher, 1 female Senior Grade 2 Chinese teacher, 1 female Senior Grade 3 sociology teacher, and 2 female Senior Grade 3 Chinese teachers. Then we interviewed 7 parents: 1 mother whose child was in Senior Grade 1, and 3 fathers and 3 mothers whose children were in Senior Grade 2.

School 6, established in 1985 as a suburban vocational school, was moved in its entirety in 2003, when it became a key vocational school at the national level. The school had approximately 2,200 16- to 18-year-old students in 60 classes: 23 senior classes and 37 vocational classes. The school had 700 practitioners and 162 staff. We first interviewed 6 parents—3 mothers and 3 fathers whose children were in Grade 1 at this school. Then, we interviewed 7 students—3 female students in Senior Grade 1 and 2 females and 2 male students in Senior Grade 2. We also interviewed 6 teachers—1 female Senior Grade 2 music teacher, 1 female Senior Grade 1 Chinese language teacher, 1 female school doctor, 1 male Senior Grade 3 physical activity teacher, 1 male Senior Grade 1 teacher who taught a general introduction to cooking, and 1 male Senior Grade 1 and Senior Grade 2 sociology teacher. Finally, we interviewed 3 male school administrators—the principal and two vice principals.

Third round of data collection

During the third round of data gathering, we conducted group interviews in three schools in Zhejiang Province on November 14–15, November 16, and November 18–19, 2005.

School 7 was a rural private vocational school with about 2,400 to 2,600 students and almost 100 teachers. Ninety-five percent of the students came from “poverty areas” and among them were 50% that came from other provinces or other cities. We interviewed 4 school administrators: a female vice principal and a female director of the office, and a male vice principal and a male chairman of the board. (The principal was traveling in the United States at the time of our visit, and most answers during our interview came from the male Chairman of the Board.) The next day, we interviewed 4 parents: 2 mothers and 2 fathers whose child was in Grade 3 high school. At least one of the mothers was illiterate and spoke a dialect, not Mandarin Chinese. A teacher helped her to participate in the interview. Then we interviewed 6 teachers, who appeared to be fairly young: a male public relations teacher for Grade 1, a female math teacher for Grade 2, a male teacher for secretaries for Grade 1, a female teacher of basic computer skills for Grade 1, a female teacher for document maintenance for Grade 1, a male teacher of information subjects and career development for Grade 2. We also interviewed six students: three girls from Grade 2, and one girl and two boys from Grade 3.

School 8 was a rural elementary school that was located close to the border of three provinces. The school offered 9 years of education, Grades 1–9. This school had a total of 1,157 students, of which 796 were at the central campus, and 51 full-time teachers of which 27 had a college degree. We interviewed 6 teachers: 2 male and 2 female teachers of Chinese language for Grades 3, 4, 5, and 6, a male physical education teacher for Grades 4 and 5, and a male math teacher for Grade 4. Then we interviewed eight parents: 3 mothers whose child was in Grade 2, 1 father whose child was in Grade 3, 1 mother with a child in Grade 4, 2 mothers with a child in Grade 5, and 1 mother with

a child in Grade 6. We also interviewed a group of 14 students: 7 girls and 7 boys, most of whom were in Grade 5, but a few were also in Grades 2 and 4. Because of their young age and the sophistication of our questionnaire, we did not ask this group of students for written answers, following the advice of our interpreter. We also interviewed 6 school administrators, 5 of whom were male: the principal and vice principal, consulting teacher, accountant, and director of the teaching department, as well as the female director of teaching. These administrators considered themselves “co-workers on this project.”

School 9 was an urban junior high school with a 100-year history. Built in 2000, the new school building combined two other schools. The school had approximately 2,600 students and 120–130 teachers. We interviewed 3 school administrators: the male principal, the female vice principal who was responsible for the HPS project, and a female teacher/administrator. We also interviewed 5 students from Grade 2: 2 boys and 3 girls. The following day we interviewed 6 parents: 2 fathers with children in Grade 3, 2 mothers with children in Grade 1, and 2 mothers with children in Grade 2. One of the fathers was a journalist. Then we interviewed seven teachers: 1 female English teacher for Grade 3, 1 male Chinese language teacher for Grade 2, 1 female physical education teacher for Grades 2 and 3, 1 female mathematics teacher for Grade 3, 1 female science teacher for Grade 1, 1 female society/social knowledge teacher for Grade 3, and 1 female school doctor.

Figure 5. Descriptive demographics of the schools and interviewees in this study

	School 1	School 2	School 3	School 4	School 5	School 6	School 7	School 8	School 9
Date Interviewed	June 4, 2004	June 7, 2004	June 8–9, 2004	Nov 22, 2004	Nov 24, 2004	Nov 25, 2004	Nov 14–15, 2005	Nov 16, 2005	Nov 18–19, 2005
Type of school	Elementary	Middle School	High School	Middle School	Experimental Junior High	Vocational school	Vocational school	Elementary	Junior High School
Special characteristics	Former pilot school	Associated with Normal College; minority students from countryside	Elite key school	Located on coastline	Located on an island	Key school	Private school, students from “poverty areas”	Offers 9 years of education	Located in the center of a city
Location	Urban	Suburban/Rural	Suburban	Urban	Urban	Suburban	Rural/Suburban	Rural	Urban
Dormitories	(not recorded)	Yes	Yes	Yes	(not recorded)	Yes	Yes	(not recorded)	Yes
Length of school history	about 100 years	2 years	over 100 years, new school building	7 years	4 years	19 years, but entirely moved 1 year ago	(not recorded)	(not recorded)	100 years, new school building 5 years ago
Entry point	Nutrition	Nutrition	Psychological health	Tobacco control	Psychological health	Nutrition	Injury prevention	Injury prevention	Psychological health
Number of students <i>n</i> ~ 15,207	1,300	1,100	1,800	1,600	950	2,200	2,400 – 2,600	1,157	2,600

	School 1	School 2	School 3	School 4	School 5	School 6	School 7	School 8	School 9
Number of teachers and staff	66	(not recorded)	(not recorded)	1,000	80	162 staff, 700 practitioners,	100	51 full-time	120–130
Interviewees:									
Administrators									
<i>n</i> = 26	<i>n</i> = 1	<i>n</i> = 2	<i>n</i> = 2	<i>n</i> = 3	<i>n</i> = 2	<i>n</i> = 3	<i>n</i> = 4	<i>n</i> = 6	<i>n</i> = 3
7 females 19 males	1 female: Principal	2 males: Principal, Vice Principal	2 males: Principal, Vice Principal	3 males: Principal, Vice Principal, Director of Admin	1 female: Principal 1 male: Vice Principal	3 males: Principal, Vice Principal (2)	2 females: Vice Principal, Office Director 2 males: Vice Principal, Chairman of Board	1 female: Director of Teaching 5 males: Principal, Vice Principal, Consulting Teacher, Accountant, Director of Teaching	2 females: Vice Principal, Administrator or 1 male: Principal
Teachers									
<i>n</i> = 56	<i>n</i> = 7	<i>n</i> = 6	<i>n</i> = 5	<i>n</i> = 6	<i>n</i> = 7	<i>n</i> = 6	<i>n</i> = 6	<i>n</i> = 6	<i>n</i> = 7
35 females 21 males	5 females: Morality; English; Chinese; School Nurse; Math 2 males:	3 females: Math, Physics, Phys ed 3 males: “Students’ work,” Biology,	4 females: Psychology, Chinese, School Nurse, Chemistry	3 females: Sociology, English, School Nurse 3 males: Phys Ed (2), Math	6 females: Math, Sociology, Chinese (3), Sociology 1 male: Math	3 females: Music, Chinese, School Nurse 3 males: Phys Ed, Cooking,	3 females: Math, Computer, Document Maintenance 3 males: Public	2 females: Chinese (2) 4 males: Chinese (2), Phys Ed, Math	6 females: English, Phys Ed., Math, Science, Sociology, School Nurse

	School 1	School 2	School 3	School 4	School 5	School 6	School 7	School 8	School 9
	Phys ed; Researcher	English	1 male: Phys ed			Sociology	Relations, Secretarie s, Infor- mation & Career Dev		1 male: Chinese
Students	$n = 7$ 3 females: Grades 5, 5, 6 4 males: Grades 2, 3, 4, 4 5 not recorded	$n = 5$ (not recorded)	$n = 6$ 3 females: Grades Senior 1, 2, 2 3 males: Grades Senior 1, 2, 2	$n = 7$ 5 females: Grades 1, 2, 2, 3, 3 2 males: Grades 1, 3	$n = 7$ 4 females: Grades 1, 1, 2, 3 3 males: Grades 2, 2, 3	$n = 7$ 5 females: Grades Senior Grade 1, 1, 1, 2, 2 2 males: Senior Grade 2, 2	$n = 6$ 4 females: Grades 2, 2, 2, 3 2 males: Grades 3, 3	$n = 14$ 7 females 7 males	$n = 5$ 3 females Grades 2, 2, 2 2 males: Grades 2, 2
Parents	$n = 6$ 6 females: Children in grades 2, 2, 2, 4, 4, 5	$n = 1$ 1 female: Children in grade 1	$n = 2$ 2 females: Children in grades 1 and 3	$n = 5$ (including 1 grand- parent) 2 females: Children in Grade 1, 1 3 males: Children in Grades 1, 2, 2	$n = 7$ 4 females: Children in grades 1, 2, 2, 2 3 males: Children in grades 2, 2, 2	$n = 6$ 3 females: Children in Senior 1, 1, 1 3 males: Children in Senior 1, 1, 1	$n = 4$ 2 females: Children in Grade 3, 3 2 males: Children in Grade 3, 3	$n = 8$ 7 females: Children in Grades 2, 2, 2, 4, 5, 5, 6 1 male: Child in Grade 3	$n = 6$ 4 females: Children in Grades 1, 1, 2, 2 2 males: Children in Grades 3, 3

Data analysis

Data analysis consisted of preparing the data—including transcriptions and translation—analyzing the data with Atlas.ti in two stages, and the process of writing.

Data preparation

For the first three schools, I “transcribed” notes from the group interviews after checking them against the tape recordings and reporting them in summarized statements of the main ideas expressed, arranged according to the topics of the questions asked and according to the target audience. (Note: My previous work experience, and a lack of experience in qualitative data analysis, influenced the use of this procedure. The approach ultimately proved to be inefficient, and refining the transcription process was part of the learning process.) I hired an American who lived locally to translate the newsletter of School 3 from Chinese into English. Our interpreter in Zhejiang Province translated the other work plans and related documents during our trip.

For the remaining six schools, I hired a colleague to transcribe the tapes of the interviews verbatim, focusing on the responses in English. In addition, I hired a Beijing-based Chinese friend—a young woman who was our first interpreter for the HPS project in Zhejiang Province in April 2000—to translate the written Chinese responses to our questions into English for round two and three. (Initially, I asked the American who translated the newsletter to translate the written responses, but she could not read the handwritten Chinese. Subsequently, we shipped the handwritten documents to Beijing where a native Chinese translated them.) I double-checked each transcription by listening

report (which was available in English from the school); and the school's protocol or work plan (also available in English). I developed moderately structured codes, and I believe that my German heritage and my personality of being accurate and very organized influenced the approach I used to design the codes. Most names of the codes started with the prefix of a broad concept, such as "Organization," "Activities," or "Challenges" followed by the various aspects of each concept that emerged from the data, such as: "Activities: health ambassadors," or "Organization: HPS planning committee." I developed codes for the different types of activities; for different types of attitude change, behavior change, and knowledge change; for different types of challenges; for different processes of decision-making (e.g., selection entry point and class activities); for different aspects of the school environment; for different mechanisms of organization; and for different types of teaching methods and training. The initial list included 150 codes, including indexing codes, and the final list included 178 codes. (Appendix 4 includes the final list of codes.)

The coding process continued with data from all group interviews in Schools 1–3. This resulted in about 13 additional codes such as "Organization: motivation," "Activities: start-up evening," and "Challenge: heavy workload," but did not use about 50 of the content-related codes created for School 5. This suggests that some tasks or activities might relate to the time in the project or the unique context of the school. For example, schools held start-up evenings only at the beginning of the project, activities such as health ambassadors might be unique to a specific school, and the types of challenges might vary at different phases in the project. For example, at the beginning of

the project, participants often mentioned the challenge of understanding the HPS concept. However, having so many codes ($n = 165$) could make data analysis less manageable.

Less data were available for Schools 1–3. Already arranged by topics, these data included some observational comments, such as when people were reluctant to answer questions. After coding, I added these data to the Results sections of this dissertation under the relevant headings, or under new headings, to describe the process of establishing Health-Promoting Schools.

After my dissertation committee reviewed the work for Schools 1–3 and 5, I proceeded to code the data for Schools 4, 6, 7, 8, and 9. For each of these schools, I coded seven documents. These documents included: four transcriptions of group interviews (school administrators, teachers, students, and parents); one long translation of all the written responses we received from the participants (school administrators, teachers, students—except for School 8—, parents); one document with notes from the initial meeting with the principal or school administrator (or the report of the school in case of School 4); and one document with the notes of my WHO colleague from the group interviews.

For School 4, new codes for activities included: signature commitment, checking appearance, research, and a few codes for challenges and organization, some of which I modified later. For School 6, I did not develop no new codes, but made an effort to fit the data within the existing codes.

School 7 started a different set of data with questions focusing on evaluation and on the entire project and with longer responses (“stories”). I created several new codes: behavior change: social skills; activities: social skills activities; activities: safety;

behavior change: reduction of injuries; organization: co-work with others; activities: competition in behavior; attitude change: motivation (to be healthy); challenge: process; health improved. I combined several codes that had only 1–2 quotations. For School 8, I added codes on evaluation, including standards changed, and I added behavior change: security. I also merged a few of the codes. The data for School 9 included the most extensive stories. I did not create new codes but fit the data within the existing codes ($n = 178$) (Appendix 4).

After coding and writing up data for all nine schools, I entered the write-up (Chapters 4–7), including translations of documents obtained in the schools (Appendices 6–11) and field notes, as primary documents in Atlas.ti for a second level of analysis. For this level of analysis, a theoretical framework, described below, served as a guide. I started data analysis by creating codes for the components of this framework (Appendix 5). For this part of the analysis—and unlike the first phase of data analysis, in which I developed codes according to the content of the data and unguided by any framework—I coded entire sections of the results by the components of the three frameworks.

The process of writing

I used the research questions that I proposed in the dissertation prospectus to structure my writing. After meeting with my committee, I added another sub-question to the original set of questions, and I reversed the order of the last two questions.

- What are the key processes through which schools in Zhejiang Province become Health-Promoting Schools?

- What interventions have schools in Zhejiang Province implemented to become Health-Promoting Schools? (Question added following meeting with committee.)
- What are the major challenges that these schools need to overcome?
- What self-reported changes begin to take place in the lives of individuals during the implementation process?
- What can be learned from these processes that may be of use to school systems in other developing nations?

I aligned codes with the various questions. For example, I planned to write about the various codes on Organization, Decision-Making, and Activities under the first question, and on the codes on Challenges under the third sub-question. I wrote on the codes of Attitude Change, Behavior Change, and Knowledge Change under the fourth key question. As I was writing, I created short phrases as subtitles for each paragraph, which were slightly different from the codes, and which I could later utilize to summarize the process and to develop a grounded theory. This level of analysis took place as I transferred the coded data to the write-up, combining codes in the write-up and creating titles for the paragraphs. I decided to answer the last question after I analyzed data from all schools.

After reporting the data from all nine schools, I reviewed my 194-page write-up to prepare a summary in response to the question, “What can be learned from these processes that may be of use to school systems in other developing nations?” This is my contribution toward formulating a grounded theory that explains the phenomenon of establishing Health-Promoting Schools.

Having realized that my Results sections (Chapters 4-7) disaggregated data into components and the stories of individual schools were being lost, I started the Discussion section (Chapters 8 and 9) with a summary by school. I later moved this summary under the HPS framework (Chapter 9). I drew from my memory of visiting each school, summary notes of group interviews by my WHO colleague, and frequency tables from coding data from each school.

To prepare for theoretical analysis of the results, I reviewed notes from my dissertation committee meetings, books and articles recommended by my committee, notes I jotted down during my initial data analysis, and the background section of this dissertation. I also typed up my field notes, most of which I accrued during my first round of data collection.

Based on the accumulated suggestions for data analysis from these various sources, I used a three-part theoretical framework to analyze the descriptive results (the contents of Chapters 4–7). This framework is composed of the frameworks initially introduced in Chapter 1: the *Key Factors in Changing Policy and Practice (Change Framework)* (Vince Whitman, 1999, 2005); the components of Health-Promoting Schools (“HPS framework”) (World Health Organization); and the success factors of school health programs (“Success factors”). Figure 7 in Chapter 9 (page 349) depicts the framework. I consulted additional resources, particularly to examine the concept of the “external forces” in China—the one-child policy, political system, educational system, health issues, and health concept—to explain the context in which the interventions took place, which I thought was important to understand. In some cases, I compared the results with other studies of which I was aware. I proceeded with these steps through the

components of all three frameworks. As I wrote about each component of the framework, I briefly summarized my findings for each component and put it in an overview (Figure 9) (page 400).

For the section on limitations, I drew on text that I had coded as limitations during my initial round of coding, on notes that I made during the initial analysis, and on limitations that I included in an initial outline of my dissertation that I developed during the time of data gathering. I grouped these various inputs into seven categories of limitations (role of researcher, social desirability bias, language and translation, culture, timing, study design, self reporting) and recommendations.

After I received comments from my dissertation committee and my WHO colleague, I edited the various sections and reorganized the structure. I split the Introduction into Conceptual Introduction and Programmatic and Cultural Introduction, split the Results section into four parts (processes, interventions, challenges, self-reported changes) and the Discussion section into two parts (grounded theory analysis and theoretical analysis), and added a Conclusion. New writings in these sections included the programmatic introduction, including an introduction to Zhejiang Province and unique and unexpected findings of the grounded theory analysis, based on comments from my reviewers. In the Conclusion section, I discussed the strengths of the qualitative approach, and I presented what the study has shown about the feasibility of HPS. I also created tables with demographic characteristics for each school and a summary of descriptive results to make it more reader-friendly.

Then I hired a professional editor to copy-edit my dissertation. My editor changed some of the titles to make them more concise, and adjusted the subtitles in Chapters 4, 5,

and 6 to put them all into the same grammatical format. My editor also edited some of the interpretations from Chinese to make them easier readable.

Reflections on data analysis

After coding all of the interview transcriptions, translations of written responses, and my WHO colleague's notes from the interviews in which he participated, the write-up of results is an effort to incorporate "everything" that the data included, especially from the primary sources and except for repetitions. I reported so extensively in an effort to acknowledge the value of each contribution and since detailed responses might give a better reflection of the Chinese way of thinking and talking. Furthermore, the main work for this study was to collect, prepare, and report these detailed process data—and doing an initial level of analysis. Later work can further utilize these data.

In the first level of data analysis, the primary intention was to learn from the data from China and to develop a "grounded theory," rather than to superimpose the Western concepts which are familiar to us (which was part of the second level of analysis). During the first level of data analysis, I noted that reports from China had a narrative style that differed from that of Western report models. The narrative style often discussed various kinds of activities or issues at the same time. For example, one paragraph was usually not about just one activity and the next paragraph about the next activity, but reports mentioned several issues in one paragraph. The structure of the reports raised several questions for me and led me to make some decisions in my data analysis and writing to preserve the authenticity of respondents' comments:

- Did the structure of the reports indicate that Chinese people might have a more comprehensive picture of things, and not such a compartmentalized view as we seem to have in the United States?
- As researchers studying a developing country with different communication methods, do we take apart—or compartmentalize—too much with our approaches to analysis and coding? Should the reporting have been by telling a story about each school rather than by analyzing by component? (The research team can arrange the data differently for future purposes.)
- If “Westerners” write down the notes, having specific frameworks in mind, do we interpret data in “Western” or “technical” terms that are familiar to us? Reading the notes from my WHO colleague sometimes led to different coding than reading the direct transcriptions.

Based on these observations, I sought to keep much of the original (translated) text in the write-ups because putting participants’ responses in “our” terms is already an interpretation that might not always be correct. My editor put some of the text in more user-friendly language, but we strove to preserve some of the “Chinese wording.”

Unless otherwise noted, all the descriptive data are a translation or interpretation of participants’ original responses or of obtained documents and relied on the self-reporting of participants.

The next chapters present the results of this study, starting with the processes of becoming a Health-Promoting School.

Chapter 4. Processes of Becoming a Health-Promoting School

Chapters 4–7 present the results of this study—the synthesis of what school administrators, teachers, students and parents from Schools 1–3, 4–6, and 7–9 told us in June 2004, November 2004, and November 2005, respectively. These chapters provide detailed descriptive data of the processes, interventions, challenges, and self-reported changes in answer to the research questions.

This first chapter of the results answers the question: What are the key processes through which schools in Zhejiang Province become Health-Promoting Schools? Participants reported pre-implementation activities, implementation activities, and evaluation activities and results.

Pre-implementation activities

Several pre-implementation activities emerged that were important to prepare for the implementation of the HPS project: gaining leadership support, being motivated, learning the HPS concept, choosing an entry point, setting up a special HPS committee, developing a work plan, and setting up policies and systems.

Gaining leadership support

It started with strong support from the leadership. This included “paying attention”—or giving priority—to the HPS project as well as obtaining financial support.

As one teacher of School 5 said, “everything can be done if the leadership pays attention to the issues.”

The principal of School 1 told us that they received support from the education bureau, also financial support, as well as support from WHO and from experts at the national and provincial levels. Administrators from School 4 also considered support from the government very helpful to implement effective school health programs. One of the school administrators’ responsibilities was to communicate with the government and to try to win their support. The report of the school stated, “We fought for the support strongly of the city Bureau of Education and [our town’s] government actively. Only in 2003, [our] town threw in 3,400,000 Yuan [~\$424,260] to set up a dormitory building of teachers and students of an apartment type. The Bureau of Education invested more than 100,000 Yuan [~\$12,480] for auxiliary facility in the dormitory building and the acquiring of more than 10 classrooms multimedia equipments.” One of the administrators acknowledged that the school, “has treated this project as the key work to do and governments at the provincial, city, and town level paid enough attention to us and support us.”

The principal from School 6 mentioned that the project went smoothly, with the full support of government and society and community. In School 7, the principal said that the project got lots of support from the district CDC, and they asked the Ministry of Health to help design the dining room. The vice headmaster reported that since the school became a Health-Promoting School, they got “much attention from the leaders,” and one of the teachers responded that they receive “help from everywhere.”

In School 8, administrators reported that leaders at higher levels offered supportive help and paid attention. The school received support from the county government. One of the administrators wrote, “We gained the support from the supervising department, especially the financial support.” Most of the teachers also mentioned more attention from leaders and government support and told us that officials at all levels “tried their hardest to make all resources they could find available to support the implementation of this project.” For example, one of the teachers wrote, “School leaders are working their best to perfect the school environment, trying to win the social power to help and educate students to offer the complete service to students. In the past 2 years, I saw these changes and had very deep impression.” Besides the official leaders, also teachers and students paid a lot of attention to this project. A student mentioned that conditions changed, “owing to the attention of leaders,” and a parent acknowledged loans and raising funds from the government as helpful.

In School 9, administrators answered that it was helpful to get “support from leaders at different levels of the municipal public health departments.” Helpful was also “the concern from WHO.” Three of the parents responded that it was helpful to get more attention from leaders. School administrators tried to get more sufficient financial support from local government.

Being motivated

What motivated schools to become Health-Promoting Schools?

Participants at School 1, which was part of the pilot project and already received the Health-Promoting Schools Bronze Medal, were striving to obtain the Health-

Promoting Schools Silver Medal. The HPS program made their school famous; they got reports about their school in the daily newspaper (a reporter from this paper arrived between the interviews specifically for a picture session of me visiting the school), and many teachers from other schools visited this school. This meant they were often busy meeting guests, but all of this also “promoted school development and fame” and made the school popular for students.

In School 2, the principal saw participation in the project as a great opportunity offered by the CDC. He was motivated to be a role model, “Only when the headmaster is healthy, students can be healthy.” The project gave motivation and an entry point to update the school. Students felt honored to be part of this project. They said the theme of the school was to provide “a good foundation for students’ development and to be responsible for the country’s future.”

A man from the United States who was very interested in physical education (PE) founded School 3. The founder left a deep impression on the school community, and people wanted to follow the tradition of PE and health. Three staff members expressed that our interview was very helpful as a motivating factor. For example, a teacher in charge of students’ work said she might feel tired sometimes, but it was “very helpful for her to have a good attitude and a good mood towards her work so as to work well and relax herself and have an optimistic attitude toward life.” She said that the interview helped her with that, noting, “I am telling the truth.”

In School 4, one of the administrators mentioned that they “won good response from the society [and the] school’s fame was spread more widely across the society.” Participants told us about a range of additional motivating factors in the school. They

noted that China positively encourages quality education (which implied that the HPS project supports quality education), and they said that they believed the health promotion project could be combined with what they call research education. They also expressed that the project was well designed and everybody was very devoted; the school received honors such as “Middle School to be the Health-Promoting Schools” and “Middle School Sanitation Chart,” and they wanted to “follow school’s demands.”

In School 6, one teacher reported having worked harder since the project started “to affect the people around me.” A female teacher mentioned that if a student made some progress, “we need to press them, immediately, so [we] could inspire the student to do better.”

In School 7, administrators applied the ISO-9000 international standard for quality management to guarantee the implementation. This ensured that this project got high priority. In addition, they launched the concept “Pay the Most Attention to Students’ Benefits” which encouraged them to deal with difficulties, and they viewed the HPS project as an important way to strengthen this concept.

School 7’s local government “had such requirements that the students have to develop in all aspects, not only in the knowledge, but also in social skills, labor skills, and a sense of arts.” This comprehensive requirement, according to our translator, is somewhat similar to the definition of health set by WHO. Furthermore, parents mentioned that children are the adults of tomorrow and thus “very important for the deep progress of society.” “If we want to push the society moving, keep on moving, we have to educate our kids.” As parents, they had “no such opportunity to take their formal

education. So when their children have a chance to know more about health and civilization, the parents can learn from their children.”

In School 8, the person responsible for the HPS project mentioned that the project was a good opportunity for the development of the school.

In School 9, school administrators thought that at the beginning of the twenty-first century, “to introduce such a project in their school was very necessary since the local economics had developed very well, so it was necessary to pay much attention to the health of people.” One of the parents mentioned that the HPS project promoted “some ideas which exactly matched the principle of Quality Education, which was being popularized by the government, showing a concern for students’ all round development.” Focusing on attaining a higher prize, such as the Gold Medal of Health-Promoting Schools, also helped motivate the school.

Learning the Health-Promoting Schools concept

To establish a Health-Promoting School requires that participants first become familiar with the HPS concept.

In School 1, students learned about Health-Promoting Schools from nutrition education activities, from blackboards, relatives, teachers, and from our interview. Parents heard about Health-Promoting Schools from “school publicity” and the newspaper. (The local newspaper in this town reported on our visits each time with a color photo on the front page.)

In School 2, administrators heard about the HPS concept around September 2003, prior to the training for this project. They heard about Health-Promoting Schools from the

local CDC, and they read about it briefly in the newspaper, but they were not really sure what it was. Then they contacted a representative from the CDC or Ministry of Education and he explained it to them. They thought it was “significant.” They sent representatives to participate in the initial HPS training in Hangzhou and to bring back materials. The English teacher, who was one of the first to hear about the new concept, was in charge of the school’s HPS project. He could get “a general idea of Health-Promoting Schools and what to do and how to do it.” He was learning by studying the WHO documents that he received at the Hangzhou training. He also went to visit a former pilot school and took many notes. Informally, over lunch, this English teacher shared that the headmaster of his school asked him to be in charge of the HPS program. He felt he was not really prepared to do this but he would do his best. He told us that he spent his 6-day May holiday searching on the Internet for relevant information, but he did not find much.

The teachers that we interviewed told us that they first heard about the HPS concept in November 2003 from the headmaster at their school’s training. They thought it was a good idea. Student interviewees shared that they first heard about the HPS concept from the headmaster in a class meeting and from teachers’ introduction, and they thought it is “a good thing, of course.” It can help “to get knowledge about good health and improve skills for health.” A male student added that he got the idea from a student representatives meeting hosted by the headmaster. The headmaster gave a report on this subject to students and teachers. The student representatives meeting included advanced students as well as students “who do not study well.”

In School 3, the principal heard about the concept the previous year. He said the concept was already “deeply rooted in his mind and in this school.” The school also

published an article about the concept in its newly reprinted newsletter. The newsletter read, in part:

However, because school health education is mainly a classroom activity, it has its limitations. As a result, it has been difficult for school health education to produce the hoped-for improvements in student health.

On the basis of this foundation of experience with school health education, the WHO developed the new concept of Health-Promoting Schools in the mid-1980s. In 1992, some regions of Europe formally took action to establish Health-Promoting Schools. In November 1995, a pilot of the China/WHO HPS collaborative project was launched. In early 1996, three cities—Beijing, Chifeng in Inner Mongolia, and Wuhan in Hubei province— participated in this project. Shanghai joined the project soon after. After undergoing seven or eight years of development, the health of the students in some of the project schools has improved.

Efforts to improve school health education have made great progress. However, health education is still limited, and there is still an emphasis on standard academic education and on increasing the proportion of students passing into higher levels of the education system. For these reasons, school health education has never been able to achieve the expected goals. For example, the average rate at which primary and middle school students were absent from school because of illness in Hangzhou in the 2000–2001 school year was 0.28 days per person. In the 2001–2002 school year, this figure was 0.20 days per person, and in the 2002–2003 school year this figure was 0.32 days/person. The rate at which students dropped out of primary and middle school due to illness was 0.376% in the 2000–2001 school year, 0.049% in the 2001–2002 school year, and 0.629% in the 2002–2003 school year. The occurrence of common health conditions among students, such as poor nutrition, vision problems and cavities, remains high and has not decreased. Among students, such problems as psychological illness, accidental injury and cardiovascular diseases appear to be increasing. Therefore, taking effective measures to increase the quality of students' mental and physical health is an issue that must be addressed immediately. Moreover, to solve this problem, we must develop "health promoting schools." Only in this way can we ensure that students grow up healthy and promote the health of all community members, including school staff and parents. School will not only be a place to obtain knowledge but also a place to obtain health.

A teacher told us that she received the information about Health-Promoting

Schools when she visited a workshop in another school, which won the Bronze Medal for this project. Students reported that they heard about the HPS concept from teachers,

blackboard (blackboards are used as bulletin boards in the entrance area of Chinese schools and sometimes in the back of classrooms), publicity, and the initial ceremony. A mother said her daughter told her about the HPS concept.

In School 4, the headmaster and director attended the training about the Health-Promoting Schools in Hangzhou. Teachers told us that they first learned “the policy about healthy schools and they learned and understand some related knowledge and policy by WHO.” After the headmaster and director returned, executive meetings and teachers meetings were held to discuss “the feasibility of promoting a health campaign.” Then, the school held a launching meeting and offered training classes “to increase the consciousness of health promotion.” One teacher reported, they “established a model of school health education and physical, mental and social quality was increased.” The mid-term report showed participants’ understanding of the importance of health for the development of students:

We think that our education must face to all students, promote development of all students, and settle solid foundation for students’ lifetime development, but the development of the students is based on health. Therefore, from the beginning we have paid attention to the cultivation of students’ health and hygiene consciousness and technical ability, we have launched propagation about hygiene and health. In order to receive the good education results, reach the anticipated goals, we fully consider the physical and psychological development characteristics of the middle school students, follow students’ rules of development, we developed to control the smoke education activity.

In School 5, in addition to studying the HPS documents, participants reported they first learned about the health promotion concept from the CDC Health Promotion Institute.

In School 6, school administrators informed us that, at first, the community and the parents did not understand health promotion. However, after nearly half a year, the

parents and the community “gradually realized and accepted the concept.” Parents received the most information about Health-Promoting Schools from the materials that their children shared with them. Thus, students transferred the concept to their families. One of the mothers mentioned that health was not just related to the school and the students, but should be aimed at every community and every family. A student said that health included many aspects such as physical health and good behavior, and a teacher observed that health promotion was helpful to form good habits, “in terms of drink, food, and life.”

In School 8, provincial leaders sent materials to the school, and members of the HPS committee presumably reviewed the materials.

Choosing an entry point

Schools used different mechanisms to select their “entry point”—the prevalent health topic they chose to address first in their HPS programs.

In School 1, which had nutrition as its entry point, the female principal said they “attach great importance to nutrition.” The principal also noted that, “even though this is an advanced city, people do not realize the importance of nutrition and do not balance how they eat. ... People don’t have a clear idea how to eat. With the advance of life here, people automatically realize that health is the most important. Even old people are aware that health is important, saying: if you don’t have good health, wealth equals zero.” When asked if they used data, the principal said they “used data in time” and that the newspaper reported data and they used it in class. The government made a survey and the “disappointing results” were that people from this city “did not enjoy good health, and nutrition was not satisfying.” The school was concerned about this result. A 2003 Student

Nutrition Situation Survey of 1516 students (860 male/646 female) showed results related to height (normal: 1404, too tall: 82, too short: 20), weight (normal: 1312, too fat: 168, too thin: 26), blood (no results), nutrition status (normal: 1289, overweight: 69, obese: 26), overall nourishment: slightly malnourished: 114, medium malnourished: 8 (according to government standards).

School 1 administered the WHO-required surveys for this project, PSE and GSHS, on May 25, 2004 and submitted the surveys to the provincial HEI. As of June 7, 2004 they had not received results back from the HEI, as the HEI was very busy. The school was waiting for instructions from the HEI on what to do with the results. The principal said that “after full consideration” they decided to have a Health-Promoting School with nutrition as entry point and “the experience from the past year confirmed that nutrition education was an important entry point.” Teachers mentioned that many people did not “know how to balance food input,” many children suffered from obesity, quite a number of students had a cold, and some students’ immunization systems were not strong. They thought students had “irregularities” because they did not have a “scientific diet,” therefore, a “proper diet would be useful for the immunization system.”

In School 2, which also chose nutrition as its entry point, the principal said they were given a number of entry points from which to choose. After a “careful study” and according to the school’s characteristic of having minorities and students from the countryside, they concluded that students did not “have the good habit of balanced nutrition” so they thought healthy nutrition as an entry point was important, achievable, and significant. The authority of the school, who primarily conducted the “careful study,” consulted with teachers in relation to this issue, but the school did not have a formal

discussion. The canteen manager, who was also the deputy headmaster, found that students had the “bad habits of not eating breakfast and being particular with their food.” These habits included not eating rice but only drinking Coke and eating bread, and thus not eating balanced meals. They found this out because each student was required to contribute 120 Yuan (~\$15) per semester for food, but one parent said her daughter never ate rice at the school, but only bread, and did not want to pay. During regular visits to the dormitory to check health conditions, the leaders of the school saw students eating instant noodles instead of “normal meals.” The principal considered nutrition an “indispensable component for humans.” Teachers agreed that the student generation suffered from “nutrition deficiencies and overweight.” Some students from the countryside did “not pay much attention to balanced nutrition,” or could not afford it. These were reasons to choose nutrition as an entry point. For the other entry points (e.g., safety or life skills), they believed they had already done well. They had just completed the WHO-required surveys, handed them in to the HEI, and were waiting for feedback.

In School 3, which chose psychological health as its entry point, the principal said they received instructions from the provincial and municipal CDCs and related it to the school’s needs. Students in this elite school were under pressure. Therefore, focusing on psychological issues was most suitable. Participants reported that the school had a “good foundation” in psychological health, “attached great importance” to PE, and already had a psychological consultant with a master degree. In addition, the school supplied a nutritious and balanced diet in the canteen that met the dietary requirements of students. They thought physical and mental well-being should be the focus of school management.

During the interview, teachers initially hesitated to identify the entry point and to explain why the school chose the entry point. After the deputy director of HEI made some comments, the teachers mentioned that this school had “a very good foundation.” From the beginning, when the school was established, it “attached importance” to students’ psychological well-being. Because it was a key school, students were very good and had a heavy load. On the other hand, society expected a lot and loaded a great burden on them. Students of this school were expected to make great contributions to the provincial development. Teachers also had stress and pressure. Therefore, participants thought it was very important for the school to pay attention to psychological well-being and produce a good environment to study and work. How to balance high expectations and quality education was a big issue. One teacher said when she learned that her school selected psychological education as its entry point she felt happy (because it matched her interest). Students mentioned that psychological health was quite a practical and suitable entry point for the school because this was a key high school that differed from other schools. To improve students’ physical and mental well-being and psychological health, education was very important. Parents mentioned that addressing mental health was “very in time, punctual, very important.” They said the school chose this entry point based on the school’s state; because this was a school where the elite studied, it caused a lot of mental pressure on students and students might suffer from psychological problems.

School 4 chose tobacco control as its entry point. School administrators gave three reasons for their choice. First, their city had a heavy consumption of cigarettes. Second, previously no students were smoking, but some students had started to smoke. Third, smoking greatly affected both physical health and economics. One administrator

wrote, “smoking is harmful to health and it is a tendency that people start to smoke from younger ages. Smoking not only happens among adults, but also youth. So it is important to prevent more youth from smoking and reduce the number of adults to smoke.” The teachers thought that tobacco prevention was “very, very important because tobacco was relative to the daily life of human beings.” So choosing tobacco control as an entry point was “very, very important and meaningful.” One of the men in the parents’ group mentioned that, “when we try to develop some idea or experience, which was formed in [this] school, one of the things that must be very, very clear is about the topic. For example, for this school, the topic is tobacco prevention. This is very, very clear, and accepted by almost everyone.”

In School 5, the school administration chose psychological health as its entry point for three reasons: First, adolescence was a “very key stage for development” during which more psychological problems happen. Second, students of this school were “top and excellent students,” so they faced more psychological pressure than other students. Third, they found in their work that students in the junior school had more psychological problems. Teachers also thought that a student would be “more adaptable ... in the modern society if he/she has stable and good psychological condition and good adaptability.”

School 6 chose nutrition as its entry point. School administrators mentioned two points related to choosing the entry point—the features of students and the school. First, as most of the students were adolescents and senior students, nutrition was very important—based on “the puberty state and the development of the body for the students.” Some of the students, especially female students, tried to lose weight, although

they were actually not overweight. Second, as a vocational school, they had a cooking department that was related to nutrition. Therefore, the representative of the students, the representative of the teachers, and the leadership of the school made the decision to choose nutrition as an entry point.

School 7 chose injury prevention as its entry point “because of the sensitive age.” Administrators mentioned that the teachers of the school visited the students’ homes, and they found that most of the students lived in the village, and had “a lack of sense of health and health behavior.” The main responsibility of this school was for “technical skills cultivation,” including internships in a factory or company. Therefore, they chose “the prevention of accidental injury” as a starting point for the school’s HPS program.

School 8 also chose injury prevention as its entry point. The principal gave four reasons for this choice: (1) there was a trend of increasing accidents off-campus; (2) according to a survey, 360 times more accidents happened to children in China than in Switzerland, for different reasons; (3) this was associated with big economic loss; (4) and this made society unstable. Additional reasons were: (1) elementary students lack a sense of security, especially in “physical elements awareness”; (2) the definition of health has been narrow—only physical health instead of mental, psychological, and other personality cultivation; (3) the national Department of Education issued documents. One of the documents described how to handle accidental injury of children. These documents asked schools to take measures to safeguard students. An increasing number of vehicles such as cars, bikes, and motorcars were around the school, and the school was located in a mountainous area with a “risky potential” on the road.

School 9 chose psychological health as an entry point. The person responsible for the HPS project reported that higher officials chose to focus on psychological health because they recognized the importance of psychological education of children. They had already made achievements and did a lot of work on psychological health before they engaged in the HPS project, thus had a good foundation, but attached more attention to psychological health since they started becoming a Health-Promoting School.

Setting up a special Health-Promoting Schools committee

Schools set up special HPS planning committees.

In School 1, the committee consisted of six people: the (female) principal as the leader; the party secretary/teacher (an older male); the head of office of moral education (female); the coach of comprehensive physical and mental education (young male); and representatives of head teachers, including the head of the first grade nutrition education course (male) and a professional nurse (female). The principal was in charge of the whole committee, and of “everything”: policy, facilities, finances, training of teachers, and cooperation with communities and families. The party secretary provided the support of the Communist Party and spiritual support and gave instructions. The school board, the authority of the school in charge of all school activities, recommended committee members. The committee discussed what kind of policy to carry out, made a plan, and discussed details and assignments of tasks and strategies to carry out the plan, including school environment, publicity, environmental protection. The following are notes from a committee meeting:

5/26/04 Meeting

China/WHO Nutrition Education; Importance of Health-Promoting Schools project

5 Committee members were present; other teachers, people from CDC, community, professional doctor meeting was chaired by the principal

Agenda:

I Community involvement

One person gave a report of what has been done in regard to working with the community

Planning for community publicity of nutrition education:

May 27 at 8:00 am going to the community to do publicity; at 7:30 pm going to another community; students and teachers will give performance and give out materials

II Teachers handed in materials of what they have done and classified the files

Main topics:

1. School health policy
2. School physical environment
3. School environment beautification
4. Good relations with community
5. Improving personal health skills
6. Health service

(all teachers have to help to classify the files since they have so many; then 1–2 teachers are in charge of putting all the files into one bound book per year) Requirement for community to hand in materials: asked community to get ready materials of what they have done for nutrition education

In School 2, the committee consisted of eight people. Three people—the headmaster, the deputy headmaster who was also cafeteria manager and in charge of students and logistics and morality, and the deputy headmaster in charge of teaching—shared leadership responsibility. Other committee members included the person in charge of morality (male) who headed the office in charge of this project, the secretary of the League of the Communist Party (male), the person in charge of morality (male), the person in charge of teaching (male), and the person in charge of instruction for girl students and psychological consultation (female). Four members of the committee used to be principals of other schools. They wanted to come to this school to make a

contribution. The school leaders chose committee members according to the duties they held, so as to attach the project to their regular work. The head of the committee organized the work for the people. Each person had a specialty. For example, the girls' instructor was in charge of working with girls, the person in charge of teaching was responsible for teaching, and the person in charge of morality was responsible for teaching morality. Students had no role in the committee.

In School 3, the committee consisted of 12 people. These 12 people were the authority; the headmaster was the head, the vice headmaster was the vice leader, and three teachers were members. Additional teachers and administrators (to make rules and regulations) included: Personnel, Teaching, Students' Morality Education, Logistics, and Psychological Well-being/Health Education/PE. The committee also included those who executed (carried out) the plans. This included students, though they did not serve directly on the committee. Three committee members were part of the interviews we conducted with teachers: the school nurse, psychologist, and chemistry teacher who was also in charge of student works. All of the committee members told us they had a strong "awareness of the health aspect." School leaders chose committee members according to their positions/roles, and the headmaster assigned work to committee members based on their roles in the school. Teachers said they got on the committee "according to their regular work and professional knowledge on this aspect." The vice headmaster was responsible for morality education in the school and in the project. Doing so related administrative power closely to the teaching/project. In committee meetings, they "arrange their work." For example, the leaders gave tasks to ask teachers to relate the concept of health education to each class. They asked the psychological center to arrange

its work and to give lectures on psychological well-being. They encouraged the logistics department to supply enough materials and information for the project to be carried out smoothly.

School 4 established a special committee or leading group for tobacco control. The headmaster was the leader of this committee, and two vice headmasters served as vice directors. They invited the local CDC and another staff member to provide “academic advice.” This committee also included some members from the communities, and a parent representative. The members of the committee took separate responsibility for their work, not only for the work plan, but also for overseeing HPS activities. The headmaster of the school was responsible for setting the goals and for implementing the more comprehensive measures. One of the vice headmasters was responsible for preparing materials, creating the materials, summarizing information, and organizing other committee members. The other vice headmaster took responsibility for education about a subject somewhat related to quality and personality, but for which there was no equivalent of an English word. All of the activities, which involved some of the social activities, social practice, and dissemination about this project, were also the responsibility of this vice headmaster. One of the teacher members of the HPS committee stated, “My job is to strengthen the virtue development among students, mainly in the mental health.”

In School 5, when the project implementation work began, the school set up a special committee to make sure the school could carry out the project successfully. In this committee, the principal was the general leader, responsible for planning and supervision; the vice-principal and the director of the county health center were vice group leaders;

and the director of the political work group, who was in charge of training students in good behavior, habits, and virtue, was the chief leader, responsible for organizing and implementing the project. Other members in this leading group included the school physician, psychological health instructor, representatives of the class teachers, teachers, parents, students, and communities. This group met regularly. Since the leading group was established, they considered their primary task to reach a common understanding, and to set up and perfect different systems in the school. For this reason, they held working conferences of the leading group before the school implemented the project. Everybody “studied relevant HPS documents conscientiously, comprehended the real meaning of health promotion at the meeting, reached a common understanding and deepened the understanding.” Their common understanding of the importance of health laid a solid foundation for further work. Based on this, they made “Health Promoting Implementation Regulations” for their school.

School 6 formed a leadership implementation group in May 2004 with the headmaster as leader and 13 members. Other members included school leaders, teachers, parents, government, and members of the community (we saw a list with names). Every member in the leading group had a different role. The vice headmaster was responsible for leading the nutrition policy, and one vice headmaster worked on communication with parents. The head doctor and cooks worked together to create nutritious menus and to communicate with students, parents, and the community about a balanced diet.

School 7 set up a special office for Health-Promoting Schools in March 2004.

In School 8, one of the first measures taken was the organization of a committee for this project. This committee modified the school policy, reviewed materials in

preparation, received help from leaders at the higher levels of government, and participated in lectures from the provincial CDC. The principal of the school acknowledged that he had a dual role in this project—one as a manager and another as a participant.

School 9 set up a special organization committee, led by the principal, with staff as members. This committee took responsibility in project implementation. The school selected a special person to be in charge of this project and designated special health teachers. Parents and community representatives also served on the committee. The school invited teachers to join with the principal for the daily management of the school, which was a more democratic process. All staff were very responsible for their work and had a passion for teaching. Health used to be the school doctor's responsibility, but participants told us that, with the launch of the HPS project, health became the whole school's responsibility. From September 2004 until May 2005, the school also adopted the ISO 9001 international standard—that companies often use for quality control—for scientific management of the school.

Developing a work plan

Schools developed a work plan each semester.

In School 1, the committee developed a work plan for 2004 for nutrition education. The headmaster and the committee led the development of the work plan, basing it on “regular work.” They consulted with teachers and made the plan. In a staff meeting, they asked all teachers to give a proposal. The committee member in charge of this project then wrote the plan. The plan contained three components (Appendix 6):

carefully studying school regulations for hygiene and health—this is the largest component, organizing teachers to take part in psychological health education, and emphasizing safety education. There was a separate plan for activities to achieve the WHO Silver Medal for Health-Promoting Schools (Appendix 6). This plan has two main components: to continue the regular work on nutrition, health and hygiene education; and to develop the school's nutrition-health based curriculum and to do related research. It includes a detailed outline of the proposed curriculum development.

In School 2, the headmaster made policies. The English teacher, who was in charge of this project, prepared the HPS program for his school by preparing regulations, plans, and telling students about Health-Promoting Schools. The administrators consulted students, teachers, parents, and the community, as well as provincial and municipal CDC officials. They made a work plan according to the HPS project and also “related it to the school's condition and arranged people to take responsibility for each item in the plan.” They consulted WHO documents (from the initial training) when developing the work plan.

School 2's work plan is included in Appendix 7. From February to July, the plan lists the activities for the early part, middle, and end of each month. The plan specifies point people (e.g., headmaster, executive group, all students), method (e.g., self-study, meeting, broadcasting, lecture), and the name of the person responsible for carrying out each activity. The school carried the plan out, and participants told us that the committee planned to develop a new plan for the next semester. They said that they intended to consider the following factors: executing detailed activities, buying facilities for the canteen, inviting people from the community and parents to take part, relating the theme

to the curriculum, building a parent committee, and detailed work. The school also had a long list of rules and regulations for becoming a Health-Promoting School and many policies focusing specifically on health (Appendix 8). There was also a separate document called “2003 Plan for Second Semester for Health-Promoting Schools” (Appendix 9). While the year in the title might be confusing, it listed as goals “to study the documents from the Hangzhou workshop, to make students’ psychological well-being their goal (note: the school has nutrition as its entry point), to set up classes on health education, and to cooperate with parents, community, and others, and supply faculty with essential health education.”

In School 3, the headmaster had a talk in a faculty meeting to inform all the teachers that they had to participate in the project. Teachers told us they had heard about the work plan, but had not read it. The school nurse said she had a chance to give input. She gave suggestions regarding commonly occurring diseases of students, their relative prevention, and prevention methods. The chemistry teacher, who was in charge of student works, supplied data about students’ psychological problems collected from her daily work. The psychologist was executing the work plan because she was a psychologist and the school’s entry point was psychological health.

School 3 published a newsletter that contained its work plan a few days before we visited. It included background, goals, strategies and steps, and information about implementation of the program (Appendix 10). While this was an exemplary plan, the second part of it was in a different voice; this might indicate (also according to the translator of this document) that the plan included excerpts from another document.

School 4 reported in its mid-term evaluation summary (available in English),

We analyzed the facts of the school, checked against the related index sign, established the target definitely, established the plan. ... In 2003, we prevented tobacco from using. On the foundation that the original health in our school education, we have combined the school actual, established the Health-Promoting School's general index mark: We regarded preventing the tobacco from using as the foundation, we have launched every activity in an all-round way, with the help of some experts, under the joint efforts of the school, families, communities, we created a healthy, hygienic, harmonious study and living environments. At the same time, we formulated the work plan to establish the Health-Promoting Schools.

In response to the question about how the committee decided what to include in the work plan, school administrators told us that one of the important aspects was “the school environment and the atmosphere for health.” The second important aspect was to prevent tobacco use, and the third was to try to increase “some awareness for health and skills, trying to combine the green environment with a secure environment.” They also said that they paid high attention to the staff and the students—especially to common disease and infectious disease—provided special nutrition services for students, and tried to get parents and members of the community to participate and provide support.

In School 5, between February and April 2004, the school set up a work plan to become a Health-Promoting School. The leading group of the committee prepared the work plan and the committee received it. This plan spelled out, for a 15-month period, several activities for each month and who, or which committee, was responsible for carrying out the activities (Appendix 11). The plan began with learning from other schools and setting up an HPS committee, included different phases of evaluation, and outlined HPS activities for each month, among other things. The scheduled monthly HPS activities included: a school football game; military (physical) training; a knowledge competition; a school athletic meeting; selection of the health ambassador; and painting and calligraphy competitions and exhibition. School administrators told us that they

based the content of the work plan on baseline investigation as well as their own experience, such as meetings with the parents.

School 6 developed a detailed work plan for health promotion for the first semester. One of the administrators said that he was responsible for writing the initial plan and was responsible for implementing the plan. An administrator wrote, “The leaders in the school pay much attention to this plan. All of us organize and implement the plan according to the schedules.”

School 7 made a semester plan that included HPS regulations each semester. The basic principle of the school was to adopt this project by “taking the practical situation into consideration.” School administrators told us that, because most students come from a village, they do not have a good sense of health and “behavioral cultivation.” Based on this practical situation, they made a comprehensive plan. Thus, the HPS effort became part of an overall school responsibility, not a separate one. The deputy headmaster remarked that the school incorporated the HPS project as a part of the whole school working plan.

In School 8, one of the administrators said that, according to his understanding, the HPS project should be based on the practical situation of the school, and use all kinds of joint efforts of the teachers, parents, and the local officials, and some leaders’ support, to create a sound environment to teach the students about health education.

School 9 incorporated this project into its education working plan.

Setting up policies and systems

One of the first steps in implementing the work plan was setting up policies and systems. In School 1, a former pilot school, the principal mentioned that they improved what they have done in the past, which included rules and policies.

In School 2, HPS project leaders told us that, after the initial training, they altered the materials they had received, based on their own conditions, and set up their own rules and regulations for the work. After they wrote the HPS regulations, they organized people to print them on a wall of the school building. They shared a long list of regulations with us (Appendix 8). This included general HPS regulations and rules for the units involved including the HPS authority committee, morality department, logistics department, and teaching department. There were also rules for “patriotic health campaign, reporting of health work, for canteen, canteen regulations for students, rules for nutrition health, for non-smoking, for regular health check-up, for preventing common disease for students, for infectious disease control, and a plan for preventing food poisoning.” They reported their plan to the local CDC and got affirmation from local CDC and instructions.

School 3 listed in their “Strategies and Steps for the Program,” after establishing a leadership group and providing training, that they would

Formulate school health policy: Make a plan to deal with such issues as the prevention of common health conditions. Make procedures for first aid for acute illness and injury. Make a plan to expand training in first aid. Make a plan to improve teachers’ and students’ mastery of life and health skills, etc. Make a plan to deal with such issues as promoting better nutrition for students, prohibiting smoking, promoting equality between male and female students and ensuring that disabled students are not discriminated against.

The principal mentioned that they planned to improve the execution of all regulations and rules related to health education, such as having a sports meeting every semester and other health quality tests.

School 4's mid-term report stated,

We have perfect organization, we have formulated the related systems and strengthened the troops construction. ... We strengthened the responsibility system of management by objectives, responsibility system. We have founded the policy teaches the place: ... It organizes students to carry on various activities to promote health, management and gathering relevant materials. It also coordinates with the connection among the communities, it is responsible for the renovation and management of the environment of the school. It gives play to the role of students' union and every of Young Pioneer actively.

The report also listed some of the specific tasks that School 4 carried out:

- (a) We run relevant certificates of staff members, we accomplish to abide by the laws, we act in accordance with the regulations.
- (b) We combined school reality, made dining room hygiene detailed rules and regulations, working system of the staff members of the dining room. We handle affairs according to the rule strictly, require staff members to carry on the physical examination of the hygiene every year, hold the card on duty.
- (c) We set up strict management system, implement differentiated control, set up successive check, responsibility is fulfilled concretely down to everyone. We guaranteed that the food source is rested assured to be qualified, stop the accidental event happening.

Students reported that the school made many new systems about promoting health knowledge and education. Documentation of these systems included *The Sanitation Administration Rules in [School 4]*, *Prevention and Emergency Plan for Infectious Diseases*, and *Health School Chart of [School 4]*. Parents also mentioned that the school "established a series of systems concerned." This school also had its health policy publicly posted on many nicely designed wallboards.

In School 5, in the early months of the project, between February and April 2004, the group in charge held meetings about school health policies. They established and

improved a series of school regulations—as some teachers called it, “a complete series of systems.” For example: “health education working system of the school, hygiene system, banning smoking, emergency plan of infectious disease, emergency safety plan, hygiene management system of dining room, classteacher’s assessing system, monitoring systems for helping special students, scholarship, stipend system, etc.” Covering more than 20 items, the regulations “offered effectual policy assurance for implementation of the project.” They determined the duty of every department. As one of the teachers said, one of the important things was to have “complete regulations and definite goals.” They also pre-planned class meetings so every topic was set up beforehand.

In School 6, the principal told us about a health promotion charter and that health promotion was “put into the whole school plan.” One administrator drew a small flow chart: “Making or strengthening policy -> Publicity in schools and communities -> Intervention (make use of reading in the morning and class meeting, stop using one-time facilities or use less of those kinds of things).” Another administrator found helpful to “make sure that the organization, teaching plan and participation time is guaranteed as well as participation and action.” Regulations included that students must not study more than 7 hours, morning running and extracurricular activities. The dining hall had 15 regulations in regard to, “firefighting, skill management, experiment management, and safety regulations.”

School administrators talked about “macro ways” and “micro ways”: Macro ways guaranteed that “health promotion work is being implemented.” Micro ways were related to students such as “first accepting the idea of health and then adjusting their daily menus and students participating and having family menus with their parents.” Teachers

mentioned “link regulations,” which meant that every teacher must link with students at a dormitory “to guard the student about habits of daily life and to form a reasonable balance.” No member of the leadership of the school was to be a smoker. The school encouraged staff not to smoke, prohibited “smoking in teaching, public areas, and in front of students;” students were prohibited from smoking and drinking alcohol. The school also encouraged every teacher to drink water in the morning.

Students mentioned that there were time schedules for every student, such as what time to get up, what time to go to bed. Since the project started, they had to be “in order and form a queue in the dining room and not just rush to the dining hall.” One student explained, “School asked us to pay attention to the food sanitation, exercises, nutrition balance in diet. And have more energy in [our] study and keep a good mood to study every day. We should cooperate well with teachers’ work. Welcome any new knowledge from teachers so that we can learn more knowledge and share the knowledge with our friends.” Another student wrote, “Policy: The school included the work of ‘Health-Promoting Schools’ into the whole plan this term. School adjusted the timetable into a more reasonable way.”

School 7 set up HPS policies and the “requirement that all activities should focus on health promotion, with the aim of healthy development of students.” Handbooks, which the school reviewed with students at the beginning of each semester, included specific rules about students’ behavior, such as “forbidding smoking, drinking, and gambling.” There were also specific rules that students “cannot keep their nails too long and that all students have to run in the early morning.” In the past, guidelines for daily behavior were general, now they were much more specific and quantifiable. The vice

headmaster informed us that before the HPS project, the activities were not systematic, nor “realized certain targets.” Teachers mentioned that after the project there was careful planning, step by step, with an emphasis on real implementation and effects. As one teacher wrote, “This is a system project, which includes clear target, good planning, serious implementation and appraisal, which needs the efforts from people of all the walks. The events should be in various ways and try to achieve meaningful results.” A student informed us that the school used a Target Management Booklet, Virtue Examination Policy and classes of About Professionalism to direct students.

School 8 HPS project leaders made modifications to their school policy. In particular, they made “many changes in the management concept, education thoughts, management way and the outlook of the campus.” For example, for the managing staff, they made “more specific labor divisions.” They made guidelines for teachers’ behavior and for “teacher inspection of students’ activities.” To guarantee students’ behavior, they were quantifying those behaviors. There were also regulations about annual students’ physical exams, about extra activities, and about “teachers needing to safeguard their students when they go back home.” The basic principle was “to try all the best for the benefits of the children.” The vice headmaster wrote, “the regulations and rules are more reasonable, different people take clear responsibility for their own jobs and increase their working efficiency greatly.” Teachers also mentioned that the school set up and perfected the management policy of the school and that “all the regulations and rules in the school are better arranged.” One parent wrote that there is a “better policy system in the school.” The school also established a no-smoking policy—applying for the title of No-Smoking School—and established a bus to transport children to and from school.

School 9 HPS project leaders made many modifications of policies in implementing this project. They made some of the policies more specific, and some parts of the policies were newly created; for example, policies on prevention, first aid, psychological health education, and hygiene in dining room. This served to make their work better on campus. Before the HPS project, children had to take military training, but since the HPS project the school changed these rules, and replaced it with “some labor and regulations.” A parent felt this was a good change. There was a policy that established every day 15 minutes to talk about what happened in the day. The teacher would praise those who did good and criticized those that needed correction. Students mentioned that the “school continued to perfect some policies and regulations which benefited students’ health and promoted students’ development,” “some policies and regulations were published on the No. 1 wall for publicity purpose,” and “school perfected the sanitary policies and teachers also educated us and we also deepened our understanding.”

Implementation

Many activities emerged that were important for ensuring the implementation of Health-Promoting Schools: being guided by rules and obedience, holding a start-up or mobilization meeting, prioritizing health, popularizing the HPS concept, cooperating with governmental departments, ensuring community cooperation and participation, obtaining input from students, parents, and teachers, being a role model, choosing interventions, providing training, conducting study visits, utilizing the Internet, choosing class topics,

using new teaching and learning methods, teaching social skills and life skills, and using new textbooks and materials.

Being guided by rules and obedience

Many of the comments indicated that participants were often guided by rules and obedience.

In School 4, for example, a parent stated, “The environment, and the behaviors and speeches by the teachers should reach the requirement of Health-Promoting Schools. All the students should strictly obey the rules of Health-Promoting Schools;” “In order to cooperate with the school, I start to quit smoking,” and “According to school’s rules, I encouraged my child to obey school’s rules. According to school’s rules, parents should be good examples for their kids.” One parent recalled that there was a “class meeting about creating a no-smoking school and encouraged students to sign their names to stick to the rules.”

In School 6, one of the students wrote about how students were helping their school to become a Health-Promoting School: “(1) Obey the rules made by the school and I should do it by myself first. (2) I should start to follow the rules from trivial things. (3) Not only obeying the rules made by the school, at the same time, I will try to improve my comprehensive quality as well.”

In School 7, the vice headmaster wrote, “From the students’ management point, we asked our students to follow a series of rules, for example, Red Flag Class Winner competition, virtue appraisal, praise and punishment based on students’ behavior. Students have been improved based on this.”

In School 9, it was obvious that people showed more love and care, for example for disadvantaged students and poor people. Administrators told us that there were similar cases before the project, but they observed, “But now they become active activities, not just a response for the requirements of the school.”

Holding a start-up or mobilization meeting

Most of the schools reported about start-up or mobilization meetings for the HPS project.

Students from School 2 participated in the “opening evening” for the HPS project the night before the interview in June 2004. This was an evening party to advocate for the HPS project. The sketches performed at this opening event for Health-Promoting Schools, such as a SARS doctor who died himself, were all produced by students themselves. Each class had its own project and put on a show applied to health education. The “Health Promoting School Start Up Evening” involved five schools. It started with short opening speeches by representatives of the Ministries of Health and Education and others. In the absence of my colleague from WHO, I was asked to give a short speech on behalf of WHO. Then the students put on an excellent, very professional program that included dances, songs, body building, music play, sketch, play, chorus, folk songs, and gong fu by the participating schools. It ended with students swearing that they would support the HPS program.

Participants from 8 of the 9 schools reported that their schools held a start-up or mobilization meeting between March and October 2004. In addition, parents in School 9 told us that when the school started to implement this project, the school organized a

study conference to call more people to join in. They invited some relatives of parents, and one of the gentlemen who came to the parents' group interview was one of the relatives of parents.

Prioritizing "health is first"

Schools put priority on health. This was especially pronounced in Schools 5 and 9, but was also reported in some other schools.

The leading group of School 5 promised publicly that the school emphasizes the concept *health first* in running the school. The concept of *health is first* was running through all activities and was also a major intervention so that "eventually consciousness for health should be automatic." As the principal said, "the most important thing is [for] both the school and parents to set goals that *health is first*." Based on publicity, education and a series of activities, the concept of *health is first* has been accepted by teachers and students. Teachers put the *health is first* concept into the ordinary teaching process so they could "greatly let the students know this concept." Several teachers we talked to considered setting up and promoting the concept *health is first* as one of the most important aspects that worked well and that they would recommend to other schools.

In School 4, the mid-term report stated that,

healthy education is in daily pursuit of the school ... State Department points out definitely in <<Concerning the foundation education reform and the decision of the development>> 'Firm propulsion education for all-round development, we must carry through the thought of the health first, improve students' physical endowment and actual level.'

One of the administrators mentioned that the school has treated this project as “the key work to do,” and one of the parents wrote that one of things that went well was “keeping health to be the priority on the working agenda.”

School 6 put health promotion into the whole school plan. Teachers mentioned that they put the concept of health promotion into education and into their teaching “so students can accept the idea and concept of health promotion.” This concept of *health is first* was such a good notion that participants suggested it could be “borrowed” by other schools.

In School 8, one of the administrators told us that he did all things by the basic principle that health is the most important factor of education. One of the teachers mentioned that, “all the efforts are made for the health of students.”

In School 9, the principal put “health is a priority” as a schooling principle, noting that the school combined health education “into daily education work” and treated it as a “priority in their daily work.” The school viewed health promotion as a systemic project. For example, in dormitories health was taken as a priority. A female administrator was mainly responsible for the promotion of this project in the school and according to her understanding health was very important, not only for the health of students, but also for the development of the school. The core idea of this project was to focus on the healthy development of students and teachers in order to promote the future development of the school. School administrators wrote, “The concept of ‘Health as the Priority’ is in full swing in all the work of the school,” “Various activities were held in the school. Some activities were regular ones. But all of them put health as the priority,” and “Since the Health Promotion School was launched in our school, the school started to change their

concept on how to run school. Now they put health as the priority, and put 'training healthy talents' as their goal. Now all the work will be extended from this basic point." A teacher thought that the greatest achievement was that since the HPS project the school treated health education as a priority of all the education of the children, instead of only focusing on their academic study, and some political study. Teachers stated, "School persuaded teachers and students to realize that health is the most important by consultancy, symposiums, and questionnaire investigations. So teachers and students can take an active part in all the events which would help improve the health condition," "The key is: both teachers and students thought that health is the most important," and "In one word, that the school treat the health as a priority. Based on this idea, they will promote the long-term development of the school itself."

Popularizing the Health-Promoting Schools concept

Communication played a key role in popularizing the HPS concept widely among teachers, students, and communities "so that everyone knew they had this project."

For example, School 1 reportedly used several 10,000 materials/brochures for "propaganda." Teachers took students to the community to do publicity. The Young Pioneer students organized special programs for publicity, and students also made "posters for propaganda to let people know about the importance of this project."

School 2 contacted the community and "reported about the project in hope they will support it, and they replied that they would like to cooperate." The administration "let students know" about the project by telling them in several meetings what they were going to do and issued some materials in regard to the project. Teachers also advocated

for students to take part in the project; for example, by encouraging students to follow regulations set by the school and committee, asking all classes to publicize the new idea on classroom blackboards, school's blackboard, and publicity window in schoolyard, asking students to contribute one issue related to the subject nutrition to put into the window.

In School 3, the City Health Education Office was responsible for designing methods to popularize knowledge concerning hygiene, and students received publicity materials related to the subject. The chemistry teacher was in charge of students' work, as part of her regular role, and she was the person to contact to cooperate with students, teachers, parents, and the community to promote the project. Students reported that they had received notices on the bulletins along the corridor and even broadcasts on the school-internal TV station.

School 4 also did "propaganda" about hygiene and health and anti-smoking knowledge. They "strengthened the contact with the society and publicized and tried to win more support." The publicity was for "the distribution of knowledge as well as to gain support." As one of the teachers mentioned, "With the measures of popularization and research, we try to encourage more people to grasp the knowledge about health" and another teacher mentioned, "Wide popularization activities and parents' meetings were held, trying to get the support from society and government." Students and parents were involved in this publicity, including distributing publicity materials such as anti-smoking materials. One student wrote, "As a student, I thought that first, I should try to join this health promotion campaign, devote my efforts to publicize this campaign." A parent

responded, “Took part in the activities held by the school and cooperated with the school to publicize to neighbors.”

School 5 introduced “the purpose and meaning of the project” through news media and Internet to the community. This played an important role in bridging the school and the community. Many articles were posted in the school bulletin to “popularize the health knowledge,” and students also helped in “popularizing health knowledge and health measures,” for example to their communities. As the principal’s report, given in English by the English teacher, said, “We encourage students to participate in various kinds of community activities and propagate the concept and every progress in [the] ‘health promoting’ program.”

School 6 also publicized the concept about health; for example, through bulletins and workshops, in the school, families, and communities to popularize health knowledge to all people. An administrator thought publicity to students and teachers and people in the community worked well so far. A teacher drew a small diagram about what he or she has learned about implementing effective school health programs: “(schools) students <-- > parents <-- > society. Based on [this] relationship, all the involved people will affect each other so that the knowledge and skills about the nutrition and health will be popularized.” Students reported that the school strengthened its publicity a lot; the school went to their community and families to publicize this project and share knowledge. One student wrote, “We help our schools to be a Health-Promoting School by popularizing knowledge and changing our own habits.”

In School 8, the principal talked about “publicizing to highlight concept change” through blackboards, children giving out information to parents, and a drawing contest.

They also had a no-smoking campaign. A committee of parents from different villages could help promote the project in different parts. Teachers mentioned publicity about the security management regulations and rules; and one teacher considered “more publicity and mobilization work” as one of the factors of how conditions changed. One of the parents also mentioned publicity as one of the factors that was helpful in making the change.

School 9 held various kinds of activities to “popularize” the concept of health. Administrators mentioned that they did “a lot of works for the publicizing.” For example, they did advertisements on the blackboard. At a flag raising ceremony, the principal gave a lecture to all the students, and in their classes teachers did it separately in different classes. Still, some students did not pay attention to this. So administrators gave a lot of explanations, did “publicizing works,” and organized a lot of parents’ meetings, trying to “make more parents understand what health means, and make them know that the school was going to adopt this project of Health-Promoting Schools.” When asked what was helpful in making the change in the concept, one teacher answered, “communication, communication and more communication; study, study and more study,” and a parent responded, “publicity about the Health Promotion School project and attention from the government.”

Cooperating with governmental departments

Cooperating positively with many governmental departments was helpful.

School 1 attained a government regulation that did not allow shops around the school to sell “bad food.”

School 4 reported, “In order to strengthen the management of Health-Promoting Schools, improve the efficiency that the health promotes every work, coordinate the relation between every department more easily” (this might refer to cooperation with departments inside the school).

School 5 cooperated with the Department of Industry and Commerce, Environmental Protection, Public Security and others “to purify the surrounding environment of the campus” such as making sure that vendors did not “disturb students” or helping students cross the road safely.

In School 6, a teacher stated, “It is recommended to set up the Security Guard System at Friday: set up the relationship with the local public security bureau and make sure that students can go home safely.”

In School 7, administrators acknowledged that the most important aspect to implement this project was to work together: “You can’t accomplish it by your own part. You have to ask other parts to co-work. With joint efforts, you can make accomplishments,” and “all of the people are working together in the education and won support from family and community.”

In School 8, the principal mentioned that “all these departments” were involved in the intervention and providing financial support. The vice headmaster mentioned some of the people that provided help: traffic police team, fire prevention team, sanitary and disease prevention department, and traffic department.

Ensuring community cooperation and participation

Cooperating with and participation from communities were important aspects.

School 1 established “intimate relationships and a network with the community, people on the street, and children’s families.” According to the principal, full community participation was very important. For School 2, the community already had close relationships and activities.

Part of the plan for School 3 stated that,

Families and community members should participate in the activities of the ‘Health-Promoting Schools’ program. The school and the community should have an intimate relationship. The city Health Education Office and individual schools will jointly appeal to each work unit and each individual member of the community to encourage them to show concern for and participate in activities related to the program of Health-Promoting Schools.

In School 4, students thought that one of the helpful aspects of the HPS project was that “school and family should cooperate together.” One of the administrators mentioned as a measure to address some challenges to “try to increase the consciousness of promoting health across the society.”

In School 5, good cooperation with parents and community was also expected. As the principal’s report said, “And we are keenly expecting that the school, parents and community can work together organically in harmony.” The leadership of School 5 also “realized that parents and community are great helpers for us to carry on the work,” so they paid close attention to this factor and encouraged widespread participation of students, staff, and communities. Reportedly, parents and community members were involved in planning and implementing the project, and helped a lot in improving the surrounding environment of the school. Meanwhile, the school was making efforts to “catch more of their attention” for this project.

In School 6, administrators acknowledged that only if people understood what health promotion was, more people could participate. Teachers noted that, “health

promotion is a systematical project, which needs cooperation of people from all walks of life” and “[the] health promotion project is one which is based on the schools and benefit for the whole society. It needs long-term support. Encourage all the students and teachers to participate.” Parents mentioned that they could cooperate with the school in directing their own children, establishing good diet habits and sanitation habits and having more exercises, and by encouraging children not to eat the food they should not eat. One parent wrote, “We will try our best to support school in the efforts of becoming HPS, encouraging our child to understand the HPS and remember the existence of HPS even when our children are at home.”

A School 7 teacher remarked that the project “needs the efforts from people of all the walks.”

In School 8, a mother mentioned that she used to think that if she gave the child to the school, then it was the teacher’s responsibility to take care of her child. Since the project, however, she came to realize that it is a co-responsibility of teachers and parents. A teacher wrote that one of the helpful aspects was “the joint effort by all the members in the community, where is the source of the social power.”

In School 9, one of the fathers also thought that the HPS project was not only the responsibility of the school, but should be a co-responsibility of the school, family, community, as well as government. A parent mentioned that “joint participation” was one of the factors that was helpful in making the change in the concept.

Obtaining input from students, parents, and teachers

During the process of establishing Health-Promoting Schools, and during the interviews, students and parents had opportunities to give input.

In School 1, students offered the following suggestions: have a theme class meeting on a special topic and encourage students “to bring back home the idea to educate parents to pay attention to nutrition education.” They believed that before students ventured forth into the community, they should know the information for themselves and they should be healthy themselves first. Students also suggested that the school ask parents to “put on a menu every day and let children know what they eat; to find out what elements it contains and if elements are missing, and to buy food to make up the deficiency.” Parents were asked for suggestions during a parents’ meeting: parents let the school know that some children did not have good eating habits; for example, they preferred particular dishes such as fried dishes but no vegetables. Subsequently, the school gave instructions that fried food was not healthy.

In School 2, the vice headmaster consulted students for advice. Students gave lots of suggestions and pointed out some problems in the canteen. Consequently, the vice headmaster talked to canteen staff and they improved the situation so that all could see the change. Students also complained that they did not have instructions for eye exercises, then the vice headmaster responded very quickly. This showed the students that the school respected students’ suggestions. Parents were asked for suggestions during a parents’ meeting. A mother’s name was listed as a parent representative; she was also a consultant to the project as a hospital employee. After the training, a school representative visited the mother to discuss the project, and she agreed with the project.

She was asked to find other consultants. As consultant, they had not done a lot because the project was still in preparation phase. On the day before the interview, they had an experts meeting in which participants decided who will be the experts as consultants. Beyond that, they did not know yet what to do, and the school had not told them the plan.

In School 3, students were asked for suggestions in the *Monitor's handbook*, and they were asked to put forward suggestions after class and in class meetings. A male student suggested, prior to the project, that the detailed work plan be given to students so they could “arrange their own schedule.” One student wrote an e-mail to me about a year later and said, “After your leaving, I was asked to make a speech about this program and what we should do to become a Health-Promoting School to all our fellow students.” A mother remembered that the school held a parents’ meeting in which administrators and teachers asked parents to put forward suggestions. Because her daughter felt happy when her teacher praised her in class, she suggested other teachers to do as well to other students to brighten up their day. She acknowledged that the school has already done very well, also in the past (before she made the suggestion).

In School 4, a student recommended that the school arrange routine psychological health examinations, and another student suggested to “popularize the knowledge through Internet and learn the advanced statistics from the governmental sanitation departments to help more schools to be Health-Promoting Schools.” While one student suggested that the school publicize the harmful effect to parents about smoking, a father proposed that China make some regulations to ban cigarette production. Another parent recommended to “summarize the good experience from the campaign and make the good experience into a system to promote, which should be a good way.” Teachers suggested paying more

attention to the “indirect effect from environment and good samples from people;” exchanging study experiences with students, and “trying to get all the experience into one book,” especially comments from parents and the establishment of parents’ school.

In School 5, some parents reported that they have given suggestions to the school. During the interviews, parents suggested that courses include more psychological health content and that parents report to the school about the psychological changes during the “growing up process” of students. One parent responded, “I would fully cooperate with the school, try to change the concept that parents can be in charge of everything in the family, and try to create more chances to communicate with my child.” A parent suggested that health promotion should be implemented at the school and in the family at the same time. It should be “individualized” to different students because if they have a difficult situation at home, such as parents going through a divorce, health promotion might “not give good results at home.” A teacher suggested during the interview that health promotion should be combined with common disease and infectious disease, such as AIDS. The teacher felt that even though some people believed that serious infections were remote, health promotion should be combined with it.

In School 6, students requested to increase health promotion from one course to two courses a week, which is from 45 minutes a week to 90 minutes a week. Students also mentioned that the fruits provided by the school were “very, very monotonous—just all apples, or all oranges.” Students would like to increase the variety of the fruits supplied—bananas, as well as oranges, or something to that effect, and not just one kind of fruit. A student also suggested increasing some of the exchange and communications between the schools, both with schools in their county and with schools in their province,

to help share experiences about Health-Promoting Schools. Parents suggested that health promotion should get more support from the media. For example, by school and media working together, they could develop new programs on TV, but they understood that this might require some funds. One parent mentioned, “Parents can do from different ways. Generally speaking, educate child and improve at the same time together.” Teachers suggested that the class teacher get trained for health promotion; they mentioned a need for a training plan; and proposed more information exchange among the schools, at the provincial, national, and international level. A teacher also suggested that the psychological assistance be expanded in the school.

In School 7, students could participate in the management of the school, according to the report of the vice principal. In School 8, students suggested that the school invite parents to meetings to inform them and exchange information. In School 9, parents suggested strengthening the communication with other countries; for example, by offering more chances to organize talented young Chinese students to visit other countries to exchange their opinions, because in other areas outside of China “There must be some good examples who do it very well.” Parents expressed their interest in finding a way to “offer a bridge for Chinese people to learn more from other side.”

Being a role model

One way of participation was being a role model.

In School 2, the headmaster acted as a role model by stopping smoking in public when they started the HPS project.

In School 4, one parent wrote, “I cooperated with all the work from the school and I would try to be the good example for my child.” Another parent mentioned, “According to school’s rules, I encouraged my child to obey school’s rules. According to school’s rules, parents should be good examples for their kids.”

One student in School 5 responded, “of course, everybody should try to be a good example for other people so that more students can be healthy and civilized students.” A parent wrote that they “can publicize the knowledge and cooperate with the school, even try to be a good example for our children.”

In School 7, teachers mentioned that, as teachers, they should become “students’ good examples” since physical and psychological health was their life goal as well. One teacher wrote, “I thought: healthy teachers can teach well healthy students.” One teacher summarized that it was good to promote health and to be a healthy teacher because only in this way can they teach health to students.

In School 8, a parent expressed that they felt they have to follow the teachers’ recommendations “because the parents are the examples of children.”

In School 9, the headmaster set an example of physical activity in walking home from school 20 minutes each day. A teacher mentioned that the Health-Promoting School has set a higher requirement for the school and him/herself. “As a teacher, I should try to realize my personal physical and psychological health target. Then I can teach my students to become healthier in physical, psychological and social adaptable conditions.”

Choosing interventions

How were the interventions then chosen?

School 4 reported various mechanisms. They carried out activities “according to the spirit of the national Ministry of Education and the Health Department.” Some activities, such as the physical examinations, were required by the project. An administrator listed five reasons for which interventions were chosen: “(1) Requirement, (2) Expected result, (3) Feasibility, (4) Daily work condition, (5) Matching the features of the school: whether it is good for promoting communication, education of psychological education, improvement of school environment and health.” Another administrator acknowledged that, since this was a junior middle school, less students smoked, so their interventions were chosen to “publicize and affect the community.” The “smoking topic” was also the starting point for sanitation education activities. Another administrator mentioned that the interventions were being implemented by basically following the plan, but it was difficult when the project involved the parents and people in the community.

In School 5, interventions were chosen because they were “helpful for students’ development and social development and based on the administrators’ experience.” The principal wrote, “the purpose is to guarantee the health development of all the teachers and students based on the practical situation of the school.”

In School 6, school administrators informed us that the “policy identified how to implement the plan.” They put the “plan to practice” which meant they implemented both the protocol and the “detailed measures were implemented according to the school.” People played different roles in the group. Some of the activities were implemented by students. Some of the activities were implemented in the community, as well as in families. When asked how the interventions were chosen, administrators responded, “It is very good for students,” “According to the actual condition and students’ characteristics,”

and “Make use of the teaching time and spare time to increase the interest from students. Before the activities, encourage students to understand more of the basic knowledge about health promotion. Take an active part in activities. So, generally speaking, choose two ways: publicity and participation.” One administrator described his role in selecting and implementing interventions: “Organizer, director and administrator; 1. Provide new concepts to participants; 2. Organize different kinds of activities.”

In School 7, administrators told us that they highlighted psychological consulting because they considered the background of the students and because most of the students of this school experienced failure of further study in high school. Therefore, they thought it was necessary for them to do some “psychological supporting work.” They had a course of career development because some students “lacked confidence in their future.” This was also very important in the HPS project.

Providing training

Training was an important component of the process of becoming a Health-Promoting School. All participating schools sent people in charge of the HPS program to a workshop in Hangzhou in October 2003 to become oriented to the concept and the overall plan of the HPS project in Zhejiang Province. This 4-day workshop, organized by the HEI of Zhejiang Province in collaboration with the Education Commission, featured national and international experts who introduced the HPS concept and its components and gave opportunities for discussion groups on how to apply the concepts to their schools.

Following this initial training workshop, School 1 conducted training for teachers: to enhance awareness and recognize the importance of the program. In the past, they had received guidance from local and provincial CDC and from WHO. To carry out the plan, teachers got assistance from the “authority of the school” who would give CDC or written materials and arranged experts from the hospital or city health bureau to give lectures. The school also invited a professional nutritionist from a nearby hospital who gave instructions. The dean of the hospital, who was a physician, also gave “very professional lectures.” The principal taught skills and knowledge.

School 2 sent people in charge to the initial Hangzhou workshop to get trained. Through a faculty meeting, teachers realized that it was important to encourage students to eat breakfast. They also got a nutritionist to give advice on how to make a nutritious menu. At the time of our interview, they were still waiting for instructions from HEI and CDC.

In School 3, resources came mainly from provincial and municipal CDC, and they hoped that WHO could offer a case study. The psychologist, who was executing the work plan, was going to hold a training course for all teachers, especially young teachers, for this project. She hoped that all teachers could participate in the project. She would be the organizer and lecturer. The plan for this school included as an implementation step:

The Hangzhou Disease Prevention and Control Center’s Health Education Office will formulate the plan for the training program. Moreover, they will train the administrators, teachers and medical staff from the four schools. ... If any unexpected problems arise concerning student and staff health services, the Disease Prevention and Control Center and the local Public Health Department may assist in resolving these problems and in providing consulting and training services for the school.

Furthermore, the plan included a step to “provide training to allow all teachers and school staff to master the basic health knowledge central to project. In addition, teacher and staff should master the goals, standards, strategies, and steps for implementing the project.”

In School 4, the mid-term report stated, “To the teachers, we have trained them how to accuse of cigarette knowledge, we have made a lot of lectures, distributed materials, let the teachers understand the harmfulness of smoking.” The training was done with the help of some experts, and the school received technical support from the provincial/local government to develop the questionnaire and analyze data.

In School 5, one of the teachers responded, “the only way is to learn each other and seek common improvement.” Schools received special training about health promotion, organized by CDC and the Health Promotion Institute. At the local level, the health and educational institutions also provided a lot of assistance. The school invited some experts and leaders of the municipal CDC, a middle school in their prefecture, and the City Teaching and Research Center for some related seminars. The province and the city offered psychological training and special lectures by mental experts. Five teachers obtained certificates.

In School 6, as the principal reported, during the summer every year they trained staff to learn regulations such as “protection of adolescents and not to punish students.” Teachers mentioned that the school sent some of the teaching staff to Hangzhou to receive psychological training, and the teachers passed the examination to be certified as psychologists so they could provide assistance for the students. One teacher reported about his or her use of teaching and learning materials: “(1) Self teaching psychology

teaching books to pay attention to the psychological health. (2) Teaching plan about encouraging students in the high middle schools not to fall in love too early. (3) Individual coaching according to different students' cases." They also invited professionals from outside the school, such as staff from the general hospital, to give a lecture about "knowledge about health." Doctors from hospitals came to the school to give lectures, a doctor from CDC came to the school to give a nutrition lecture, and they invited medical experts to the school to give a lecture about medical knowledge.

In School 7, an administrator mentioned that he took "the trainings of the project," attended some courses and studied the materials so he learned more about health. He found that the HPS project was in line with the values of the school. This will help him in the promotion of this project. One teacher decided to learn more about social skills herself.

In School 8, the provincial CDC gave lectures. In addition, administrators mentioned that the school required staff, especially young teachers, to get training on psychological health. They also had to take examinations to get provincial certificates about psychological education.

In School 9, administrators informed us that since they implemented this project, they did "a lot of training works and invited other professionals to do the lectures." By doing these activities, more and more teachers realized "that health included three aspects, namely: physical, psychological, and social skills." With the guidance of the municipal health bureau and the CDC, they made a lot of changes, and also took some trainings. For the training of teachers, for example, they ordered psychological health textbooks for each teacher and asked teachers to take trainings. The book *How to become*

a qualified teacher is about psychological health, “full of cases and helpful in daily work.” In China, one can study by him or herself and get a certificate, and the school will pay the cost for self-study and examination. Students informed us that many of their teachers had taken psychological education training, and some even took examinations. With those learnings, teachers, during their daily work, “could find out if there was something abnormal, or uncommon among students.” If there was, they could invite the student, personally, for individual consulting. As another student put it, “teachers of the school also have to take some examinations about psychological education to check whether they’re qualified, or not. By taking those examinations, more and more teachers can do a better job. For instance, try to make friends with their students.”

Conducting study visits

Study visits were part of the training.

In School 1, very many teachers from other schools visited, and the school was busy meeting guests. School 2 sent people in charge to pay visits to Health-Promoting Schools, and to bring back materials from the schools. Two people from School 4 went to School 1 to investigate and study. School 5 sent teachers to investigate and study at a middle school and primary school where they had already implemented the project. Then they relayed the messages at all teachers’ meetings. In School 8, the vice headmaster wrote, “We went to other schools to learn from their experiences.” In School 9, teachers informed us that they took visits to other schools such as School 1 and schools in other cities of Zhejiang Province. Administrators thought that “many samples around us” were helpful, and a teacher stated, “Visits to other schools were organized and put into operation.”

Utilizing the Internet

The Internet was one source of information. In School 1, each office had a computer with easy access to the Internet, and teachers were free to go online and get information about nutrition education. In School 4, one teacher reported about providing information, both from the Internet and from the newspaper, about the health consequences about smoking. A helpful experience for another teacher was to “share the experience and measures” from the HPS project through the Internet.

Students also benefited from access to the Internet. In School 4, one of the students reported that one of the differences since the project began was the ability to check information on the Internet. In School 5, teachers and students worked together to collect information about infectious diseases, their symptoms, and their pathological ways from various media sources, including the Internet.

Choosing class topics

How did schools choose health-related classroom topics?

School 4 chose three initial topics: nutrition, environment protection, and tobacco control (the entry point was tobacco control). As one teacher reported, they started from the topic of smoking control. At that time, it was “to correct the school atmosphere and promote the harmonious and joint development by students and teachers.” Teachers gave many different reasons for choosing their topics. At least two teachers mentioned that “smoking control education” was included because their city was a cigarette

manufacturing city, and there was a tendency that the age of smokers was getting younger and younger, which affected the health condition and economic development. “So we thought that it is very important to increase the health consciousness among teachers and students, set up no smoking schools and encourage parents to reduce the smoking amount and so on.” One teacher added that “environment protection education” was chosen since it was an important issue because of the economic development in their city. It was very important to increase the “environment protection consciousness” among the young people. Nutrition education was chosen because nutrition was one of the “direct reasons” that affect students’ physical condition. Another teacher explained, “(1) Mental Health education: It is very important for the future development of the whole society to keep young people mentally healthy. (2) Smoking control: According to the tendency of more young people to smoke, the education of controlling smoking is being strengthened to young people. (3) Environment health education: increase the environment protection consciousness among students. (4) Sanitation and Health Education: train sanitary habits among students.” Furthermore, a teacher reported, “I discussed with our students about this topic. We had chosen the topic of Environment Protection. However, many students suggested that we discuss how to control the smoking population—we should suggest our family members to reduce the smoking amount and to purify our environment! So, we finally decided to choose the topic of smoking control.”

In School 5, teachers also gave many different reasons for why they chose the topics they addressed. For example, teachers chose the topic on how to communicate with students for the reason that now many students would like to talk instead of listening

to others. They held theme class meetings and open classes about psychological health, such as "Presenting A Song To Mom," because many students did not "treasure the love of mom." Sometimes, teachers encouraged students to speak their opinions and teachers adopted their health topics. The themes that they had addressed thus far were how to prevent and treat SARS and chicken flu because these diseases spread in their country and other countries and it was difficult to cure them and necessary to make students understand. For another teacher, topics included patience, nutrition and sanitation, based on the "practical condition of students." Another teacher addressed psychological health problems, self-protection and nutrition for students because students were "in the physical development period and they will have psychological changes so that it was important to provide specific education related to certain problems."

In School 6, when asked if teachers choose the health topics that they addressed with their students, 2 said No and 3 said Yes. Both of those who said No mentioned that the topics were banning smoking, and nutrition, while one teacher added "basic knowledge about sanitation" and the other teacher added "health and exercises." These topics were chosen for the following reasons according to the two teachers, "The reasons are: (1) The age when people started to smoke is getting younger and younger. (2) Try to encourage students to pay more attention to their concepts about setting up scientific diet. The key purpose is to encourage students to nurture their willingness to participate," and "According to the characteristics of the physical development and age features of students and certain tendency in the society." The three teachers who said they chose the topics gave no rationale for their choice but listed the topics: "Ban on smoking, education about adolescence age, nutrition and health, oral hygiene, safety," "(1) Nutrition

knowledge (limited knowledge), (2) AIDS (limited knowledge), (3) Students fall in love at earlier age (don't know how to solve this problem), (4) Behavior rules (some students have bad behaviors)," and "middle school students should keep away from smoking, the right relationship between boys and girls, how to train healthy habits in sanitation and diet and so on."

Teachers had to carry out or arrange almost all of the activities:

Using new teaching and learning methods

Teachers used some new participatory, interactive, and democratic teaching and learning methods.

In School 1, teachers said that primary school senior students had "great creativity" for plays, did it independently, and were "more creative than teachers." When asked what made students persuade their fathers and grandfathers to stop smoking, they said teachers gave "knowledge and instructions" about the importance of nutrition and also about non-smoking, and they realized the seriousness; students persuaded parents on their own; teachers introduced some methods, and students were very creative and came up with methods in a class meetings. After the school gave instructions and materials, students realized the danger of second-hand smoke, therefore they wanted to tell parents to stop smoking.

In School 2, a student said that classes were held "very vividly." Students were encouraged to talk about their own experiences. This student thought this was very successful. School 4 encouraged health promotion through participatory learning.

Teachers reported, “We also encouraged students to do research and then we would try to find out the solutions when they come back.”

In School 5, teachers used new teaching and learning methods, particularly participatory methods such as “elicitation, communication, questions, cooperation” including group discussion, group activities, and students giving lessons and appraising their lessons. Teachers tried to communicate more in class meetings, and students were encouraged to talk and express their opinions. As one teacher reported, “our education believes that educating people is more important than giving the contents [of] the book. So when we finish every lesson, we would like to encourage students to freely express their opinion. From the point view about health, students would talk about their life target, and their feeling after the lessons and their future target.” Teachers were also “trying to create democratic, harmonious and cooperative atmosphere in the school ... [and] try to create cultural atmosphere and improve the ability on how to appreciate the good virtue and beauty.”

School 6 provided courses that encouraged students to participate. As teachers told us, “Before, usually the teachers were involved in projects, and the students just followed. Now, the students are actively involved in this project.” The physical activities teacher tried to implement a student-centered activities concept. He also tried to develop some “good interpersonal relationships” among the students, and he tried to “let the students be independent, active, and creative.” One of the administrators mentioned that participatory activities had worked well so far.

In School 7, many of those we interviewed told us that teaching methods had changed. While inspecting classes, the school had noted that some students were asleep,

and students told us the atmosphere in classrooms was boring, dull, and not very active. Consequently, in the recent 2 years when they implemented the HPS project, the school required teachers to pay more attention to the teaching methods, to be less talkative, but to engage students in fun and interactive methods such as case studies, imitation, and classroom discussion. A teacher mentioned, “when I prepare for my classes, I added more content about attitude towards looking for jobs and dealing with daily business. I raised questions, communicated with students after class, understand students’ self appraisal and expectation about the future.” They also emphasized the positive part of students’ growth. Feedback from students showed much more satisfaction with the teachers now that teachers were using the new methods and lectured less. Students mentioned that classes were not boring anymore but interesting and that they were encouraged to learn from each other and help each other to increase the team spirits.

School 8, according to the principal, made changes in teaching methods to make classes more fun. This included students’ speeches, students’ drawings on the wall, various contests, and other interactive methods. The principal reported that students felt more involved and learned more. Administrators mentioned that they used some positive examples and some bad examples to help students develop for themselves a sense of staying healthy. Teachers made a lot of efforts to help students learn how to change their living habits. For example, they wrote a song and poem about daily behavior, and what they should do and not do; the song and poem encouraged students to stop buying “unqualified foods” from the vendors and take their pocket money to buy and read more good books. Every day, the students would be organized to sing this song. Students also

mentioned activities that encouraged them to jointly write down their names to encourage people to quit smoking, and to stop buying unqualified things to eat.

In School 9, teachers mentioned a change in the education concept: from simple target to comprehensive target including knowledge and “real skills.” As for the teaching method, a teacher explained that the teaching concept was about adopting more democratic and more equal ways to negotiate and communicate with her students. They would do various activities, organized by monitoring teachers that would “educate students’ relative knowledge through activities.” A teacher thought that the greatest achievement of this project was about the teaching concept, because the teacher used to focus on academic teaching, but since they implemented this project they had started to care more about their students, in all aspects. Teachers treated their students as individuals, to see what they really thought about, to learn about their likes and dislikes, and to find out their future plans.

Teachers also told us that there were changes in appraising students and in teaching style in classes. “The conclusion is more active cooperation and participation by students:” “Before, students were passive when they had questions. But now, they will find out questions actively and explore how to solve them.” Teachers made classes more fun and interesting instead of just having students listen to their lectures. One teacher, who had done some research on questions, stated, “(1) We nurtured the atmosphere for students to raise questions. In terms of their study, student will be a problem student if he/she doesn’t have questions. (2) Praise students who raised questions. (3) Encourage students to find questions which teachers can’t answer.” A student thought it was helpful to “incorporate the education with the entertainment activities—incorporate some serious

topics with the lively and interesting activities, which left deeper impression on students.”

A student explained that the teacher will praise those who do good deeds, and also will criticize those who made mistakes, and offer some correction suggestions. If a teacher found that a student was not so open, he would make some changes and make more sociable students to sit next to him.

In School 9, a young female monitoring teacher explained that people in China pay attention to five aspects of the children’s development, mainly, the value or moral development, the academic study, the physical health/physical education, the arts, as well as labor. Actually, most schools just paid attention to the first three aspects. So at first, she thought it was real hard for her to adopt the new ways of this project. But, after hard thinking, she realized that the first value also included psychological health and physical health was already included. So, she tried to think of other ways to combine those “works” together since as a monitoring teacher, she had to spend a lot of time talking with her students. In the past, when something wrong happened, she used to just teach a lesson. After the project, however, she changed her teaching methods. First she tried to put herself in the other person’s shoes and tried to think from the other person’s point. “How do they think? Why did this happen?” After thinking of these factors, she would do an “equal discussion” with the students. She thought this could make for better communication.

Teaching social skills and life skills

Part of the new teaching and learning methods included participative activities to teach social skills or life skills.

School 7 helped students to gain confidence and prepared them for career development. For example, they asked students to set goals, to make a record of every day: a life / monthly / yearly record, and to compare goals and daily behavior. The school also helped students learn how to interview and find jobs. They practiced job hunting skills in an “imitated employment fair” with practice sessions in which both interviewer and interviewee were students. A student mentioned that they had made a lot of improvements in expression, negotiation skills, and social skills, by participating in those activities. Students told us, “The school also highlights the importance of social skills learning [especially for] the vocational students because they have to work as soon as they graduate from this school. So it’s very important for them to learn some professional skills and social skills.” Students learned how to handle interpersonal relations which is a crucial aspect for finding a position in society. The teacher of career development told us that he paid a lot of attention to the development of professionals and social skills. For example, when teaching about professional qualities such as paying attention to details, he took the example of the subway in Shanghai to persuade his students how important the details were because the Line One subway in Shanghai was designed by Germans. And a second line was designed by Chinese people. Different designers built these two lines, but, actually, they were quite different. For the Line One they paid a lot of attention to the details in designing, so it was better. He also tried to help his students know themselves better by lots of new means. For example, he used the SWOT, which looks at strengths, weaknesses, opportunities, and threats. The SWOT instrument was made available by CDC. In addition, students told us that “the school will have a lot of contests

to make students participate in lots of activities to make them more confident and more active and more communicative, more sociable.”

School 8 included practice activities, including fire safety drills. In the dormitories of School 9, a teacher was responsible for each floor and could offer help in daily life and educate students to take care of themselves, cultivate social skills and hygiene. For example, some teachers would do laundry for students, but students washed their underwear themselves and cleaned their rooms. Those who did not live in school might lack the ability to take care of themselves, while those who lived in the dorm went home and helped their parents with housework. They also organized activities for social skills such as “which students do the best washing, or which room is most clean or tidy, which student takes best care of himself or herself.” Participants felt this would inspire students to take care of themselves, for self-management and self-control. A parent told us that their son shared a room with four roommates in the dormitory. After his regular study, they could have further discussion about how to do their papers, and learn how to exchange their opinions.

Using new textbooks and materials

Some of the schools used new textbooks or made modifications to books.

In School 1, teachers had lots of textbooks to select from. A provincially issued textbook included nutrition, therefore, they selected this. The school added to the textbook and purposely developed additional materials themselves, depending on each teacher. This school also had a contract with a national publisher to publish books, which is rare, according to my Chinese friends. They reportedly did an excellent job, so the

education bureau did not ask the school to buy or use the bureau's nutrition reading materials. The PE teacher went to the bookstore himself to get a nutrition education book, and the school gave him money to buy it. Students themselves compiled song book regarding health, sports, health care.

School 4 developed a health education textbook. It covered topics such as personal hygiene; hand washing; daily physical activity; diet, nutrition, and health; psychological health; smoking and health. They also developed another little book on the various World Health Days: China Student Nutrition Day, World No Tobacco Day, World Environmental Day, International No Drug Day, Love Your Teeth Day, Hypertension Day, Diabetes, HIV/AIDS Day. Furthermore, they had an environmental education book that was developed with the school, and included a chapter on Health-Promoting Schools and information on smoking. Teachers of a variety of courses used these books to integrate the content into their lessons.

School 5 used newly-published textbooks that included some psychological issues and the new teaching standards. The textbook was published by the Department of Education and the People's Publisher. They adapted some of the contents according to their school. As one teacher reported, "we added many beautiful articles to improve students' ability in appreciating the beauty of culture."

School 6 issued materials about nutrition and health as well as physical education, with the help of some of the teachers. Since they had knowledge about nutrition and health because they had a special department of cooking, they asked related teachers, as well as school doctors, to write special documents for the students and for the community. To prepare for the use of materials, teachers would be gathered together.

School 7 developed handbooks about health that were given to students at the beginning of each semester. Students could use these books to spread knowledge to their parents. They also had a brochure for parents about safety knowledge. In addition, the school made a textbook about career development that many schools in China adopted. The school also made documents about its experiences, and all these materials could be used by other schools, if necessary.

School 9 did a subject reform about psychological health. As there was no subject about psychological health, they made changes and ordered psychological health textbooks and asked teachers to take trainings. Furthermore, students bought books about the subjects, or went to the library, to learn and study by themselves, outside of their regular classes, or on weekends.

Monitoring and Evaluation

Evaluation was part of the WHO project, and schools also had their own distinct monitoring and evaluation methods. These methods included carrying out process evaluations that documented the various monitoring processes of the HPS project and conducting the WHO-required baseline, mid-term, and final evaluation. As a result of their involvement in the HPS project, and their deepened understanding of the link between health and education, some schools engaged in changing standards of evaluation.

Carrying out process evaluations

Some of the schools had extensive process evaluation methods.

In School 1, we saw an extensive file system that might indicate that documentation of the process was far-reaching. Part of the final report from the pilot project phase for this school states:

The files work is conscious and norm. Since carrying out this project, the project coordinating group, enforcement leading group and various working mechanisms all did a lot of work. Every activities have plan, record and summary; the document of picture, video and words are complete. At present, all of them have been filed and have totaled 80 files.

School 4, according to the mid-term report, had a system called “Teach the section.” This system was “responsible for having something to do with the arrangement and compilation of materials, such as planning, summarizing, experience, etc, in health education. It does the discussion in theory to the promotion of health of the school.” In addition, they launched a “‘five contests’ activity every day: we examine students from five respects, such as attendance, hygiene, discipline, sleeping, having dinner, etc. Then we summarize the results every week, summarize per month. Scientific and normal checking at ordinary times has built the campus living environment orderly, neatly and hygienically, it has trained students to have good habits, it has advanced the activity for the promotion of health.” One teacher mentioned that in order to keep the environment sanitary, they set up monitoring teams composed of members from Students’ Union.

In School 5, observation showed that this school, like others, had large numbers of folders as part of extensive record-keeping systems, especially for process evaluation. For example, teachers were asked to hand in their teaching materials on specific health topics, for record-keeping. According to the school protocol, one of the first activities was to explore the problems about the students’ physical and mental health. Furthermore, the principal’s report informed, “we check and feedback the situation of implementation

that every department works regularly. ... After the project was implemented, we still have carried on an overall assessment on the safety, ... and also the value for the health promoting project.” There was also a “classteachers’ assessing system” and “special students’ helping monitoring system.”

In School 6, teachers told us that the school had set up monitoring positions for sanitation.

School 7, as mentioned above, was monitoring the whole process of this project according to the requirement of ISO9000 Quality Monitoring System. Administrators thought that these efforts should be convenient for supervising and solving the problems in the implementation. The school had a process of interior auditing of implementation each year because they wanted to promote the project systematically and effectively. The Director of Public Relations Office designed the four standards to monitor the food quality and environment quality in the dinning room: they evaluate raw materials, bowls and plates, cooking ways, and personal sanitary habits.

Furthermore, since students who entered School 7 were not well behaved, students’ behavior was evaluated and rated regularly. In the past, guidelines for daily behavior were general, but since they implemented the HPS project, the guidelines were much more specific. For example, guidelines became much more quantifiable since the school became a Health-Promoting School. Behavior was addressed systematically to ensure it conformed with the guidelines. Students competed to become model students, and those who became models were recognized in a Red Flag Class Winner Competition. One teacher reported, “As a teacher in charge of a class, according to the school’s arrangement, I am responsible for checking whether students follow the behavior

standards set by the school, announce the results of the checking, draw monthly conclusions for students and select the Good Example students. So far, more and more students could be selected according to the results of behavior standard appraisal.”

School 7, as reported above, did an investigation in the classes and found that some students went to sleep during the lectures. After they changed the teaching methods, the latest assessment about students’ satisfaction with the teachers found that the rate increased greatly, and reached about 92 percent satisfaction. In the past, the rate was never beyond 90 percent. Teachers also had opportunities to appraise themselves. As one teacher reported, “In the Appraisal for Teachers, all the teachers passed. It meant that teachers were changing their teaching ways, which attracted students.” There were also self-appraisals for students. As one student reported, “I took [part] in the social practice activities that were arranged by the school, I could appraise myself through these activities. Meanwhile, I also could appraise myself by comparing with the Target Management Booklet. I felt that the project of Health Promotion School is effective.” A student also mentioned that, “Students will help monitor each other and remind each other and then report to teachers to pay attention to these students.” In addition, parents gave the school written feedback on questions regarding knowledge on safety on injury prevention, made according to provincial CDC materials.

In School 8, school administrators told us they had a questionnaire since last year about “the training situation of teachers.” They got some feedback from students about their impression of their teachers. The students also had a chance to make comments about the behavior of teachers, their teaching content, and their teaching methods. They also conducted a survey among the parents to gather their opinions about the school, to

try to find out which activities they thought were the best, and which did not work so well. The principal of the school took comments from the teachers, so the teachers had a chance to offer some suggestions about the principal's work. According to the feedback from these surveys, they could make modifications and made some corrections in their daily work. For example, they had a survey about their teaching in class. In the past, some teachers did not show much respect for their students. For example, once during the course of physical exercise, they tried to play a flight game. When something was falling down, one of the students tried to help the teacher to pick it up. But one of the teachers told him, seriously, to just let it fall and stay away, meaning that he did not want that student to pick it up. The student did not feel very good about this. Later, when he met the principal, the student told him that if the teacher treated him in such a way, he did not feel very good. But this was in the past. The principal said it showed that the teacher lacked some sense of respect for the students. They tried very hard to gather such examples as the original materials. Based on these materials, they set up a system for the assessment of teaching. By doing this, school administrators felt they could encourage students to grow more healthily, and study more healthily. Teachers told us that they also organized some examinations to check how much the students learned about the "fields of knowledge." One teacher wrote, "We held many activities to observe difference of behavior, knowledge and teachers' concept before and after the intervention."

In School 8, we learned that the provincial CDC inspected files. This school had a regulation about teacher inspection of students' activities to "guarantee students' behavior." They were quantifying those behaviors. A Chinese language teacher told us, "I appraised the results of the measures by holding various activities. For example, I always

checked students' clothes and hands and observed what students would say and do in those events to feel their changes." A student told us that the school organized students wearing a red tie every morning to do their "investigation on the campus to stop bad behaviors, like throwing trash around, or buying unqualified foods." The school also made a daily record of injuries to students.

In School 9, the school organized students into a team to do an investigation about the campus environment. As reported earlier, teachers investigated the history of children with mental health problems. They tried to find more ways to get more information about the child, what happened to him, "today, yesterday, the day before yesterday, instead of only passing their knowledge." An administrator mentioned that, in order to check and appraise this project, the school organized teachers and students to have symposiums and listened to the feedback from teachers and students. The school accepted the suggestions from teachers and students to further improve "the working style and broadening the knowledge scale and providing more publicity materials." One female teacher told us that there was a competition among teachers in the school to see who were the best teachers. Of course, the standard was by their achievements in teaching, and sometimes younger teachers would do a better job. In the past, maybe she thought it was not very fair. But after the project, she just treated it "naturally." Sometimes she did a better job, and she thought she should because she got more experience.

A teacher informed us that the "school conducted an activity to appraise how to solve the worried condition of students before tests, relieve the confused mood in juvenile students, and how to communicate between students and their parents. After that, we can see that big changes took place in the school. Students improved their ability in becoming

independent, respecting to other people, considerable to other people and having problem solving skills.”

Conducting baseline, mid-term, and final evaluations

Schools participated in the evaluations that were part of the WHO project; and, in some cases, they added their own surveys and evaluations. As part of the expansion of the HPS project in Zhejiang Province, WHO asked that participating schools with students ages 13 to 15 conduct the GSHS. Furthermore, staff and some students from all participating schools were asked to complete the PSE, and students from all schools were asked to fill out a Chinese-developed survey related to the entry points of their schools. The latter two were conducted as pre- and post-test.

School 1 conducted its own investigation and analyzed data with respect to education in regard to psychological aspects, obesity, and eating breakfast. They also conducted a study regarding nearsightedness. This provided “first data for future children.” Children’s Publish House published the results of the research. School 1 was part of the pilot project, and it did not complete the WHO-required surveys of the extension phase in which the remaining schools participated.

In School 4, school administrators reported that they conducted a baseline investigation of the physical health of staff and students before beginning the project.

School 5 participated in the evaluations scheduled by the WHO project. According to the school protocol, in June/July 2004 the school conducted the baseline investigation of students’ mental health and the GSHS, as well as a “situation analysis and objective making by the county department of health, teaching, business, school,

community, parents.” An “investigation by the people in charge of the Health-Promoting Schools object from cities and counties” was scheduled for September. In November, the school received the mid-term assessment of the experts of China/WHO and the provincial assessing group. In January 2005, they had a group meeting on the mid-term work and for making amendments and further data gathering. For March, there was a group meeting for the final evaluation scheduled, and data gathering and preparing the final assessment was scheduled for April. In May, the school then welcomed the experts of the China/WHO project and the provincial assessing group for the final evaluation.

In School 6 we heard that a questionnaire about nutrition and health had been administered. One of the teachers mentioned that effective evaluation was necessary and much needed.

In School 7, as reported above, at baseline, teachers visited students’ homes and found that they lived in the village and lacked a sense of health and health behavior. They filled out the PSE baseline survey and received the results in October 2004. They made a statistical record of accidental injuries, reported below. Asked about the situation before School 7 became a Health-Promoting School, school administrators informed us that, “Before this project, we also extended some activities. However, those activities were not systematical, nor realized certain targets. Students lack enough consciousness about health.” Students knew little about how to avoid injuries, such as what they should do when facing drowning and touching electricity lines, and they lacked good sanitary habits, had “no idea about health,” and did not have a good psychological quality. Teachers informed us that before the HPS project, “Students’ behavior didn’t follow the standards; the understanding about health was only about physical health,” “There was

big difference among students. Some students lack enough confidence and felt that it was boring in classes,” and there was a “Lack of comprehensive understanding about health; lack of ability in directing students.” Students stated that before the HPS project it was “of course not as good as right now. The atmosphere in the class was not very active, and the environment was worse than present.” “Before, students lack enough health consciousness and didn’t have complete knowledge about health.” Parents reported that before the school became a Health-Promoting School they did not pay much attention, that their son “was not so mature and considerate,” and their daughter “was not very healthy, [had a] lack of confidence and didn’t want to study.”

At the final evaluation in School 7, virtually all of those we talked to gave as their assessment that the HPS project at their school was necessary and successful. For example, school administrators remarked, “The intervention measures showed that Health Promotion Project is necessary and the results have been positive and successful,” and “General impression: this project is effective and successful. Because of the change, some graduates welcomed in their companies, which is the biggest happiness to me.” Students responded, “From the experiences after I took part in some events, I thought that this project is a must for our school to implement and the result is obvious, which helped students a lot,” “First, I thought that this project is very successful. All of us are very active in joining this project. After this project, we regained our confidence in our life and we are more optimistic about our future. Moreover, we grasped more knowledge about health. So I thought that this project is very necessary.” Another student responded, “I thought that this project is effective and necessary. Activities like this will help us develop toward a better direction, live in a better life, and change the results of some

things around students (for example, with the better ability to control mood, students can solve problems in a better way to achieve better results).” A parent responded, “Very good impression. They provided complete health knowledge. My daughter improved herself in many sides, which also promoted the development of us.” Teachers summed up the experience by noting, “physical and psychological health is improved” and “everything is getting better and better.”

In School 8, the principal informed us about the local situation of this school: According to a survey: 34.7% of parents did not stay in the village but went out for work. The survey discovered about the psychological situation: Students were a little lazy; for example, they were sometimes late for school, played on the way back home, seldom finished homework, and did not like studying. Students lacked healthy living habits and lacked self-control in daily life. Participants reported that students paid “no attention to hygiene” and had “untidy nails.” Students also lacked self-confidence. For example, whenever there was a parents’ meeting, many students could not have parents present because parents went to work, and they could not attend the meeting. This made children feel bad. School administrators told us that many young parents left their hometown, and went off site, maybe out of the province, for their job. They left their children at home, to live with their grandparents. So they lost the “existence of parents.” Those children faced big problems in daily life, and also in study. The school got this information by visiting students’ homes and by communicating with their grandparents. The school conducted a survey to try to find out the specific number of those students. After the survey, they tried every means to get in touch with their parents.

Asked about the situation before School 8 became a Health-Promoting School, a school administrator described it as “not satisfying.” Teachers portrayed it as “Many potential security problems; lack of enough security [and sanitation] consciousness among teachers and students; and the school environment was bad.” Parents depicted the pre-project school situation as “dirty, messy and bad” and “My kid was not very happy before.” In regard to the effectiveness of the interventions, the principal reported that according to feedback, there was a difference between boys and girls in the provincial survey (presumably the PSE survey). In addition to gender difference, students of different groups had differentiation. There was also a difference about acceptance of the safety concept. One of the school administrators wrote, “We extended questionnaire activities among students and made investigations in surrounding communities. Our conclusion is: since we launched the Health Promotion School project, people improved their health knowledge and health skills.” A parent responded, “We will be very happy to send our kids to study in such a nice school.” Asked if they had done the PSE survey, there was some confusion. Teachers told us that they found differences between boys and girls in the results and offered separate instructions to boys and girls. Then, after some discussion, we were told that they had not have time yet to make a comparison.

Furthermore, in School 8, during the final evaluation, virtually all the responses expressed a very good impression with the project. For example, two school administrators stated in writing that they had witnessed big changes in the school since the launching of the HPS project. One of the administrators gave four examples of these changes: “(1) construction of the campus, (2) spirit conditions, (3) the relationship between students’ parents and the school, and (4) supervisors pay more attention.”

Another school administrator had the impression, “Very effective. The ‘hardware’ [physical environment] and ‘software’ [psycho-social environment] of the school are improved greatly.” One of the teachers responded, “I thought that this project is well under way in our school. This project is important to family, school, and society. Only when the next generation of youth grows up healthily, will our country have a brighter future.” One teacher gave specific examples, “The general impression is good. Since we launched this project, the outlook of our school is changing every day. The first is that the campus is more beautiful; the second is that students have better security guarantee. For example, students younger than age 12 are not allowed to take bikes; instead of that, school opens the shuttle bus service and students will be escorted by teachers to walk out of the campus. Now the injury incident cases happened less than before.” A parent stated that the implementation of this project not only pushed the development of the school, but was also very helpful for the growth of their children. It also made the parents more relaxed when they were working outside the city or province. Another parent expressed that “substantial changes have taken place in all the places of the school. With the joint efforts from the school leaders and all the teachers and students, I believe that school will have brighter future.”

In School 9, administrators told us that survey questionnaires and discussions helped them find out that some teachers had high pressure and psychological problems because they felt pressure from students and parents, and parents had high expectations of their one child because of the one-child policy. Before the project started, the school knew there were some problems in families but they did nothing about them as they felt it was not their responsibility. With the change in concept, they realized that they could

care so much more and could help children in many aspects, not only in school.

Administrators informed us that since they implemented this project, they did a lot of surveys, questionnaires, and training. This included the PSE and the GSHS. The school doctor mentioned that the school always paid a lot of attention to the health of their teachers and students, therefore, at the beginning of this implementation of the project, it was very hard for them to find new ways to make it better.

Asked about the situation before the HPS project started, responses from administrators and teachers included: “Teachers only cared about their teaching work,” “Lack of the consciousness about health and the willingness in changing their behavior,” “Because our school is very big, many students are afraid of facing teachers and school leaders,” “School organized some health education activities, but teachers and students didn’t pay enough attention to the health and the activities were limited in styles and numbers,” and “The understanding about health was too simple and narrowed minded.” Some students responded, “Students might only think that study was the most important and neglected the psychological health issues and some potential problems,” and “the campus was not so nice and no complete psychological service measures.” Some parents mentioned that the school paid attention only to academic education, and “Before it was not bad. But now it is much better.”

Concerning the final evaluation, the person in charge of the HPS project at this school referred to the PSE and the GSHS, which found lots of changes (see Appendix 12 for survey results). For example, the GSHS showed differences in washing hands before dinner, awareness of physical health and weight, and in regard to physical attacks. Comparisons of pre- and post-test showed that many students changed. They were less

likely to think that they were not as good as others and more likely to learn from others, they were less likely to laugh at each other and could adjust themselves better when laughed at. There were also differences in hygiene related behaviors and drinking and smoking. Students' relationships with parents had also improved. For example, after the project, if they quarreled, they said they were sorry first and compromised. In regard to the psychological situation, after the project's implementation students knew better how to adjust and how students thought about themselves.

According to those who responded, people were healthy in School 9. Two administrators wrote that they could see improvements in teachers' and students' health condition and that teachers and students were physically and psychologically healthy. A person working in the school clinic stated that the disease outbreak rate was dropping, and a teacher stated, "Students and teachers are healthy physically and psychologically, active in their daily life, and harmonious people relationship."

Asked about their overall impression of the HPS project after more than 1 year, administrators responded that teachers, students, and their family members had a deeper understanding about health; teachers and students enjoyed good physical and psychological health; teachers were active in their work and students were active in study; and the relationship between teachers and students was harmonious. They noted that they put health as the priority since they implemented the HPS project, put "training healthy talents" as their goal, and paid more attention to trivial things. Teachers mentioned that the clear target of the HPS project realized development in multi-directions and that the project was well planned and organized and would make teachers and students happier. Students paid more attention to themselves, and they realized their

own strengths since the school improved its service consciousness and paid more attention to the health of teachers and students. One teacher thought that the most important change was the improvement in the physical and psychological condition of teachers and students. After the project, students expressed their problems to teachers, and teachers could cooperate with each other and exchange their teaching experiences.

Students responded that it was a very practical project that brought true benefits to them for their whole life. It was very meaningful, influenced them a lot, and encouraged them to pay more attention to health. One student thought the project was very necessary for them since they were living in such a competitive age and knew only to study hard and neglected health. But teachers and school administrators told them that they should realize healthy and complete development to lay a solid foundation for their future. The project was of great help to some students in difficult situations. Parents also had a very good general impression and responded that the project matched the general principle of quality education in China; it did not pay attention to any superficial things, and the school was experiencing many big changes, including concept change, behavior change, environment change, and school style change and the target had changed from only focusing on academic study to focusing on quality education. The campus was more beautiful and the relationships among people more harmonious, students helped each other and teachers were more devoted to their teaching career. Participants told us that the school was leading in the city before, but now it became outstanding. The school changed its style from a school that only focused on how to achieve good results in different exams to a school that focused on training healthy students and realized quality

education. The school would train students with a healthy body, healthy psychology, and good social adaptability, who could stay with the environment in a harmonious way.

Changing standards of evaluation

In some of the schools, we learned that the evaluation standards changed as the understanding of the link between health and education advanced.

In School 5, parents told us that before the project started, the school paid more attention to students' academic achievements, but now they paid attention to the academic achievements and health status at the same time.

In School 8, the principal of the school informed us that he thought the biggest change happened about the "teaching aim." In other cities and before he came to this school, he only focused on one thing that he thought was very important: the teaching quality. So he did a lot of surveys, but mainly about the subjects. When he made a judgment about a teacher, whether he was good or not, it was only by the scores of the students. After the HPS project, he treated health education as a priority. He focused on physical exercise, the other class activities, the social activities, and the leisure time of teachers and students and what they did in their spare time, and whether students were tall or short, and their eyesight. So health education was listed as one part of the overall goal of education. School administrators further informed us that a change happened in the teaching idea of teachers. The teachers used to focus only on the scores of the students, whether they could get high marks in examinations. After the project, they also took health education into consideration, thus the health situation of a student was also one of the standards of the assessment of students. A parent described the current

situation as “Pay much attention not only to the development of student’s academic results, but also to students’ physical and psychological health.”

School 9, as reported above, used to focus only on academic studies but, after the project, had developed a broader focus and strove to help children develop in all aspects of life: physical, emotional, and social. A parent expressed that the school changed its definition of a good student: in the past they thought a student was good when he or she studied well, now they thought if students did not do so well in academic study, he or she could do other things. “Now school pays attention not only to the academic study, but also study about other field, for example, starting from quality education to develop students’ all round ability training.” This was an encouragement for students to develop in all kinds of aspects. Participants also told us that the school raised the standards for teachers because they believed that only teachers who develop soundly in both psychological and physical aspects could teach their students well.

The next chapter describes the interventions that Health-Promoting Schools implemented.

Chapter 5. Interventions of Becoming a Health-Promoting School

This second section of the results answers the question: What interventions have schools in Zhejiang Province implemented to become Health-Promoting Schools? Participants reported a variety of activities: classroom-based activities, school-wide activities, and outreach activities as well as changes to the school environment.

Implementing a variety of activities

Schools in Zhejiang Province reported that they implemented a variety of activities.

School 4 reported that they implemented health education in an “all-around way.” They launched various “healthy education activities,” promoting students’ overall development. Administrators told us that they took “every measure to disseminate knowledge about health.” One of the school administrators wrote, “Starting with the topic of smoking control, the school tried to promote the health education, nutrition education and green environment education. Target different audience, including teachers, students, parents and residents in community.” Teachers reported that the school offered many different activities to help teachers and students become familiar with the “knowledge about how to prevent smoking and about health.” One teacher reported, “With the themes of *Smoking Control and Refuse to Smoke*, different kinds of activities were held, such as research activities during holidays, theme class discussion were held to encourage teachers and parents to exchange their experience and opinions, as well as other activities

of health improvement research, health education workshops, prevention and control of common and infectious diseases, handwriting and painting competitions, how to prevent unexpected injuries, selection of safe, civilized and green schools and so on.”

In School 5, to implement the concept, school administrators and teachers found it most effective to hold various kinds of activities that incorporated the HPS concept and that focused interventions on “the development of all students in an all-around way.” Thus, the school implemented comprehensive interventions to “develop a comprehensive quality of the student.” The school’s “Five Items Program” included health, athletics, hard study, civilization, and doing exercises between the classes.

In School 6, the staff responsible for the HPS project took different measures, such as issuing materials, keeping in contact with parents, and encouraging parents to learn from their children about “the health knowledge.” The school offered “education and exchange in the topics including physical health, psychological health, food, sanitation and environment and so on.”

School 7 also extended a series of activities with health as the theme, with the help of the HPS project implementation group.

In School 8, the principal reported that they “tried to make education everywhere,” and a teacher reported that one of the helpful aspects was “all round influence and education.” The school offered various events and activities.

In School 9, one of the teachers responded that “various activities were held in the school. Some activities were regular ones. But all of them put health as the priority.” These activities included theme class meetings, discussions with teachers in charge of the classes, visits to families, psychological health service to students—called “Soul

Garden”—and daily academic activities which were “more colorful now.” These activities promoted students’ physical and psychological health. One of the students thought this project was practical, because it was “not just talk,” as in other projects, but a lot of activities, and also changes in their surroundings, to help them develop. A parent wrote that the specific steps included “integrated education, sanitary, public security and community to jointly launch the health promotion school project.”

Overall, schools offered a variety of activities including classroom-based activities, school-wide activities, outreach activities, and efforts to change the school environment.

Classroom-based activities

Classroom-based activities included integrating health into regular teaching, holding class meetings, and providing individualized instruction and care.

Integrating health into regular teaching

Each school integrated teaching about health into regular teaching in various ways.

In School 1, for example, every teacher participated in the project, and even the English teacher emphasized the importance of nutrition. Teachers had to make a schedule for each year in which they purposely put nutrition education into the plan, and they “handed the plan to the school authority.” Depending upon the subject matter, teachers used several methods to share nutrition information with students. The math teacher

assigned questions or problems for students to solve and purposely put nutrition education in her design. The English teacher used pictures or fresh fruits to introduce fruits and made statements that they were healthy foods—this was considered “vivid.” In Chinese writing class, the teacher asked students to write poems about nutrition and about the importance of nutrition education, and in music class, the teacher put on a play in which students were dressed like fruits. Each class also performed short plays, recited small poems, and participated in “cross talk” talk shows with two students as actors.

In School 2, after the biology teacher learned that the school participated in the HPS project, he used time in class to introduce students to the project. In class, he began to closely relate the project to his teaching. He introduced “the harm of smoking and the rates of cancer sufferers.” He told students that psychological balance was important, especially as they were taking the college entrance exam. He also told students that a “good mood” was helpful to achieve well in the exam.

The math teacher, who was in her first year of teaching, found it more difficult to integrate nutrition education into her class activities. However, as a teacher she paid attention to nutrition education outside of class. Due to the focus of her class, the PE teacher found it easier to relate nutrition subject matter to her class. For example, girl students wanted to look beautiful, and the teacher could advise them on how to keep slim when they worried about being too fat.

For the physics teacher, many chapters were difficult to relate to the HPS content. However, the teacher used the chapter about energy to make the class more “vivid.” He thought this could be significant. Other teachers had not yet integrated HPS activities into their teaching.

The head of the project observed that even though the textbook did not mention it, one needed to be creative in implementing the project. The deputy headmaster had a plan for a health card: to collect information about nutrition-related health to be issued to each teacher and to ask them to pass on the information to the students at the end of one class each week. For each grade, teachers prepared lessons together, so groups of teachers would receive one card per grade. The school nurse, school doctor, and a professional nutritionist would decide which information to give to teachers. During our interview, however, the headmaster started a discussion of the health card plan. He thought it was not feasible to ask teachers to go over the health cards in each class—doing so, he felt, would interfere with regular teaching—and he decided that teachers should integrate the information into class activities.

In School 3, the principal mentioned that one of their three “to-do” points was to emphasize health education and to relate it closely to normal/regular teaching.

In School 4, various teachers integrated health into their teaching. The physical activities teacher addressed with his students injury prevention. He also raised awareness and consciousness about safety and protection. In athletics, they fostered a happy atmosphere to prepare for a lifetime of physical activities. The English teacher added the concept of “cleanliness” to the vocabulary, which went beyond just the meaning of the word. She also incorporated teaching about healthy habits, noting that, “I teach, ‘keep healthy.’ I teach them: ‘Jim’s mother is ill.’ So I teach my students: ‘Jim’s mother is ill. I’m sorry to hear that. We should do more exercising to keep us healthy.’ And we can do the eye exercises to keep our eyes clean.” The English teacher also added content about no smoking, keeping healthy, doing morning exercises, and not littering.

The sociology teacher included tobacco control in her teaching. She told the students about a story in the Chin Dynasty, when they prohibited tobacco from abroad—the opium war—and combined this story to tell them about tobacco prevention. The school doctor tried to focus on common disease and infectious disease, such as typhoid fever, to help students form good sanitary habits. Students mentioned that the teachers put some of the health ideas and concepts into the teaching courses. For example, some of the teachers who were teaching about nature added some of the health concepts to that course. The Chinese and English teachers also put some of the health ideas into their courses. As our Shanghai-based consultant summarized, “They’re trying to penetrate health activity and prevention into their discipline in teaching.” Teachers also tried to widen the concept of health promotion. For example, they attempted to combine some of the nutrition and green environment concepts into the health promotion project. The expanded idea was to cover psychological health, as well as physical health.

In School 5, the principal’s review of the project stated,

We have established such a thought that the classroom is the main place of the project implementation and the activities are the way. So we encourage all the teachers, in teaching, to apply the characteristics of their own subjects, respectively, to fully embody the basic ideology of ‘health promoting,’ and then to improve the students’ relevant knowledge and skills. It is stipulated that all the teachers come up with at least one note related with teaching method to the school in every term. The classteacher must submit a copy of relevant activity-teaching proposal as well.

School staff was committed to implementing the project. As a teacher said, “We do it substantially. Not just say something, also do something.” Leaders, teachers, and students experienced a certain amount of pressure to do well.

In School 5, teachers included health topics in their regular teaching. For example, the mathematics teacher let students calculate their Body Mass Index (BMI) to

determine if they were overweight or not. The sociology teacher included self-defense in her class, and the Chinese language teacher, acknowledging a broad concept of health, taught about democracy and harmony through the teaching of Chinese literature. The students also learned about “the spirit of the nurses”—their brave behavior and devotion. Before the project, teachers prepared for their class academically, now they also tried to address health topics and tried to maintain the students’ self confidence. Health-related classes usually met once or twice every week. The school also offered psychological assistance weekly.

In School 6, a teacher told us that he tried to add nutrition concepts to his general cooking instruction course to form good habits of the students. Early last century, Chinese people were quite poor, so fat was not a serious problem. Now, with improved economics, some people ate too much, which led to overweight for some students. To help students improve their quality of life, the teacher provided information about the concept of a balanced diet—sugar, fat, proteins, vitamins, and minerals. He also tried to introduce some balanced foods, including vegetables and meat, into his cooking courses to form good habits of the students. The physical activity teacher tried to put some of the health concept “seriously into physical activities,” because health includes both the physical health and the psychological health. For example, some of the students tried to lose weight, and he tried to persuade the students to use physical activity to lose weight. In addition to these activities, the principal mentioned in his report that there were classes regarding HIV/AIDS with English language.

In School 8, a Mandarin Chinese teacher told us that in the past, he only taught knowledge from the textbooks. Since the implementation of this project, he also tried to teach some safety knowledge and health knowledge in class.

School 9 highlighted psychological health by adding new content to its academic education and by conducting lots of activities to offer psychological consulting and surveys. Teachers told us that “for the software part” they tried to think how to combine this “education of health” with the subjects they taught. For example, they added health knowledge to the subjects they taught, and they tried to cultivate students’ abilities to think “directly” and to take care of themselves in daily life. The science teacher thought she should also teach students about puberty—such as telling students how to treat the relationship between young boys and young girls—because teenagers are very sensitive.

Holding health-specific class meetings

Class meetings served for the dissemination of knowledge about health topics.

School 1 set up a new course for nutrition education once a week. For example, the principal told us, in the class textbook they had a lesson how primitive people lived; then students pointed out the advantages of modern life, and the teacher would tell them the importance of having a balanced life. Parents said teachers should teach good habits, as they have done. In this school, we had the opportunity to observe a class meeting in a “moral education” class (Appendix 13). It focused on the love of parents for their children and included many interactive and technology-facilitated activities, such as children sharing pictures and stories of how their parents cared for them, a mother

sharing a story, short videos and cartoons, and children writing on a heart-shaped paper a note to their parents.

In School 2, a female student said they had several class meetings about this project. Classes were held “very vividly.” Students were encouraged to talk about their own experiences. This student thought this was very successful. A male student mentioned that the headmaster introduced safety cases to emphasize safety and security.

In School 3, part of the “Strategy and steps for the program” included “Health skills for individuals: Establish health education courses. These should include physiology and hygiene; safety and first aid; personal health care, etc. These courses should be integrated into the general teaching program.” The implementation plan says, “for individual health skills, each school is responsible for offering health education courses and for fully integrating these into teaching activities and, at the same time, is responsible for creating various kinds of extracurricular health education activities.” School staff told us, because the school regularly emphasized psychological education, they emphasized it more for this project, and they took a video and pictures. Students mentioned that they had theme class meetings. One class meeting focused on psychological health.

In School 4, the mid-term report stated, “From the beginning, we have concentrated our efforts on strengthening the health education.” To implement health education, one of the steps included, according to the mid-term report, “Propagate the accurate knowledge of cigarette. Prevent the students and others from using the tobacco and then promote the development of students in an all-round way, such as good physique, psychological quality, social adaptive capacity and behavior etc. [and] also

influence the families and the communities at the same time.” They held theme class meetings, and during the class meetings the teachers gave students more information about health such as smoking control education, environment education, and education about how to prevent common diseases among students.

In School 5, there were many class meetings, particularly on the topic of mental health, including classes about the relationship between students and parents and how students could improve the relationship. Students themselves held a class meeting.

In School 6, the principal reported that the school “guaranteed” time for health promotion, including physical activity and health classes at least 45 minutes every week for health promotion. There were class meetings regarding nutrition and health. They also used videos and other materials to disseminate knowledge about health.

In School 7, the students who entered this school were usually not well-behaved. So the school offered education about their behavior. During this course, they would offer some advice about their daily behavior and some suggestions. All new registered students also had to take some courses that would help them “find confidence again,” because they experienced some failures in examinations in the past. Further knowledge promotion focused on health knowledge and security and legal knowledge, including first aid (e.g., heart attack, CPR, fire protection). First aid was taught with professional videos and with the help of the school doctor. Classes included on-the-spot fire prevention practice and first aid skills practice. The school included a psychological workshop once a month with the themes of “how to control mood and how to keep healthy.” Even though there were no regulations for psychological health in vocational schools in China, this school included psychological health because their students “lacked mentally.” They

also invited professionals from the health department and traffic department to give lectures, and they got videos for students from the district CDC on the prevention of common disease.

School 8 arranged some special courses about health in their regular teaching. Students mentioned that they attended lectures about safety and health, and watched videos of safety knowledge in the multimedia classroom. Lectures about safety, for example, included traffic regulations such as that it was not right to drive a car without a certificate or to drive when drunk. They also had “sanitation knowledge workshops” and “disease prevention knowledge workshops.” The school also invited professionals and doctors to give some lectures: Traffic policemen gave a workshop about traffic security and teachers from medical schools gave a workshop about sanitation.

School 9 offered school-wide workshops and education, particularly to “promote the education of psychological health.” In their daily study, teachers would offer some advice about psychological health, and they gave some lectures on this part. They also held class meetings, with role-plays, with the specific topic on integrity once a week. Students told us that teachers educated students “to pay a lot of attention on their personal hygiene maintenance.” Also, a policewoman gave a lecture.

Providing individualized instruction and care

Teachers gave individual attention to help students pursue a healthy lifestyle.

In School 2, students often went without breakfast, and ate only biscuits or cookies. Teachers encouraged students by telling them “the knowledge to eat breakfast.” After the head teacher of a senior class learned that the school participated in the project,

she would give more advice to students who wanted to eat instant noodles or who did not pay attention to hygiene. When she saw students doing so, she would give suggestions “in time.” In School 7, for students who had “a lack of self-control ability,” teachers and students would remind and educate them again and again to change this problem.

School 9 had many activities to “show care” for one another. The relationships between the teachers and the students improved greatly. For example, after their classes, the teachers would try to help those students who lacked in the classroom, in their spare time. Students also helped each other. For example, to those who came from poverty areas, other students would try to give some financial support to help them in study and in living. Each year, the teachers also would donate some money, trying to raise some funds for those with financial problems. The school did not require these activities; the teachers just did it, voluntarily. Since they adopted the project in the school, they tried to “create an idea for students that if they help others, then when they are in difficulty, other people would try to help them, too.” In the past, it was a common phenomenon among the students that they tried to compete for things. After the HPS project, however, they understood each other more, respected each other, and were more polite, so “quarreling and fighting seldom happened on campus.” There were also some disabled students in the school. Most students would help them by themselves.

A father of a School 9 student told us about a daughter in the neighborhood who did very well in academic study but never shared her study experience with others. After the HPS project, he observed that many schoolmates visited the young girl’s home to ask for her help with solving academic problems. The young girl also began to actively offer her help to those who struggled in their academic study. This change was primarily a

conceptual change, because the teachers and leaders of the school kept reinforcing in students that “when you grow up, you have to answer to society, and you have to learn how to get along with other people.” The father thought it was important to make the girl realize that it was very important to communicate with her schoolmates.

One School 9 physical education teacher said that in China, Confucius had a very powerful influence on education. According to the idea of Confucius, children must listen to their parents. In school, they must listen to their teachers. This can create conflicts. For example, the teacher wanted to find some athletically talented students to organize the school’s team. When she discussed the possibility with one student, he was reluctant to join the team because his family was not very rich. When the student agreed to join the team, the teacher needed to negotiate with his parents. The parents were worried that if their child did more physical exercise, he would expend a lot of energy and needed more food. They were also concerned that he would spend less time on his academic studies, with which he was already struggling. The teacher then had further discussions with the parents. To respond to the parents’ worries, the school made a rule that each PE teacher would buy one box of milk for the child a month, the teacher discussed the child’s academic problems with the principal, and the child’s teachers took responsibility to help him in their spare time. At the time of our visit, the child had developed very well. The teacher told us that he would attend a municipal sports match on behalf of the school, he was doing well in his performance in academic study, and his parents had expressed support.

A teacher offered another example of a specific case in her class. There was a child who was born with some disability to his neck that made him not very physically

healthy. The child was also not very good at self-expression or language ability. The parents were “caring too much about the child,” and at the beginning, the teacher also showed “too much caring” for this child. But, later they realized that it was not very good for the growth of the child because they cared too much. The child had no chance to develop all the abilities by himself. Thus, the teacher had a lot of negotiation and communications with the child’s parents, encouraged the child’s fellow students to do the “social works” and reach out to the child, and help the child participate in more activities and make friends. The child also participated in the visit to the farmland, spending several days outside the home. Classmates helped him a lot, showing their caring and understanding, and the child smiled more and was happy.

More examples about individualized instruction and care are reported under “Psychological consultation.”

School-wide activities

School-wide activities included adding extracurricular activities, creating wallboards and bulletins, holding competitions, sponsoring signature activities, launching arts days and other festivals, providing psychological consultation and care, offering physical examinations and health services, checking students’ appearance, encouraging physical exercise, broadcasting through school radio stations, providing nutritious food, instituting safety measures, and forming unique student support groups.

Adding extracurricular activities

Extracurricular activities supplemented the class meetings.

In School 3, the “Strategy and Steps for the Program” stated that,

There should be a plan for extracurricular health activities that will consolidate the knowledge learned in the classroom. This will ensure that students master skills for dealing with common health conditions (in themselves and others) and that they will learn how to maintain their psychological health.

Students informed us that the school had a morning meeting on Mondays. In the meeting, they were told something about HPS occasionally. The morning talk was given by each class. Classes took turns to give the lecture; the theme depended on the class, they chose topics according to “state’s conditions” and recent happenings/events.

In School 4, the Students’ Union held workshops about disease prevention and treatment. In School 6, in June and September, the school took evening time to organize students to learn about puberty. School 8 had a regulation that every day, before the start of the first class, there was a short meeting during which the teacher would emphasize the knowledge of safety.

School 9 had a policy that every day, before the students were dismissed, they spent 15 minutes to talk. During this time, the teacher would have a deep discussion with her students about psychological health: what had happened that day, and why, and how to solve any problems. Since the implementation of this project, they added more contents about health in the 15 minute discussions.

Creating wallboards and bulletins

Schools utilized wallboards and bulletins to disseminate knowledge about health.

In School 1, teachers organized activities to encourage students to turn in pictures related to nutrition. They also held blackboard competitions. Every classroom had a blackboard in the back and students took turns to design the blackboard. A special person was in charge for the blackboard in front of the school.

School 2 had done publicity in the school's publicity window and blackboard. Students participated in blackboard publicity. The vice headmaster, who was very responsible for this project, also asked students to produce an issue for the school newspaper on nutrition education.

In School 3, students took turns in designing blackboards. Each class had their own blackboard. For the blackboards they chose the topic according to the schedule of the school. The school had a schedule with themes of the month, and then the blackboard got designed according to each class's characteristics. One student said their blackboard focused on religion, culture, and poems. During the week of our visit, the theme was "health and the WHO project," so many blackboards, in the back of the classroom, had health-related designs.

In School 4, the mid-term report stated,

The propaganda show window of all kinds of themes are woven in ingeniously in each public place rationally, every corridor is also an artistic corridor where students show their abilities. Students' calligraphy and painting works are hung on every wall.

Parents mentioned that one of the culture changes was that one could find a lot of "wallpapers, exhibits on the wall, and a lot of things for the dissemination of knowledge," and students also mentioned that the school "put something on the blackboard, and the black walls to disseminate about health promotion." Blackboards were set up to publish the materials about "harmful effects of smoking." The school also distributed pamphlets

to parents and friends about the “harm of tobacco.” The school also had nicely designed health education wallboards on various topics, in display cases behind windows.

School 5 issued documents about health and posted articles in the school bulletin to popularize health knowledge. Wall newspapers or wallboards disseminated knowledge about health promotion on topics such as “hygiene and health” and the “health is first” concept. School administrators appointed several teachers to maintain this work regularly. They frequently changed the contents of the wallboards to give students more information. “Recent Top Topics” and “Attention on Health” has been a regular column and was updated regularly.

In School 6, one of the first things they did was put some nutrition and health knowledge on the blackboard and the wallboard “so everyone knew some knowledge about that.” They also used bulletins and many posters about nutrition and health.

School 7 had blackboards and paintings by students and publicizing materials on the boards. School 8 also had blackboards as well as student drawings with safety-related pictures on the walls around the schoolyard.

In School 9, students told us that even though the school emphasized the importance of the concept of health, lots of students did not pay much attention to this. So in order to highlight the importance in the school campus, they put a lot of signs on the wall to arouse the attention. They also had banners and issued lots of documents about health promotion.

Holding competitions

There were special writing, calligraphy, drawing and knowledge competitions about health topics.

In School 1, teachers and students mentioned that because of this research project, there was a knowledge competition in the province on nutrition knowledge. Students would research for themselves and get information from the Internet so “they knew better.”

In School 4 there were competitions on writing articles about tobacco and health, and bad consequences of smoking. The mid-term report gave some examples:

Some drawing competitions about ‘smoking and health.’ Some articles competitions about the danger of tobacco and how to prevent nearsightedness. Thematic activity of ‘health and environmental protection’, thematic propaganda activity of safety education, thematic calligraphy of health painting matches, etc.

One student mentioned that the school also held a bulletin competition about the health knowledge to promote the health knowledge to all the students.

School 5 encouraged students to write articles about “life, health and development.” The winning pieces were compiled into a book for all the students to read. The school organized a health poster painting exhibition, and it had a unique competition to choose students as “health ambassadors,” which many of the people we talked to recommended to be shared with other schools. The competition included a series of tests including what students thought about their health, both physical and psychological, and self introductions during which the psychology teachers watched if students felt nervous, thus testing their comfort level of public speaking. The school then chose 10 health ambassadors who were “key persons” for the HPS project. Health ambassadors set models for other students, distributed “knowledge about health,” and did special tasks.

For example, health ambassadors, wearing a red sash with yellow characters, welcomed us to the school and joined in some of the interviews as observers. Since it was an honor to be chosen as a health ambassador, one of the students told us he tried to behave himself to keep the reputation of the school.

School 6 organized knowledge competitions about nutrition and health so that students could actively participate.

School 7 had as one of its unique features a competition between students to choose those who behaved best. Such activities never existed before. They quantified behavior according to the student handbook which included a manual for students' daily behavior. The winners put their names on red paper to publicize and make them become "model students." This gave them a motivation to be the "star student," which in turn motivated them to behave better. This also created a very good environment to encourage students' behavior to "get better and better." In addition, the school had various competitions including a composition contest with the theme of "Health and Me" and a health and security knowledge competition. The vice principal thought that promoting competitions between classes and dormitories created a "promising school environment." Students organized competitions between dormitories by themselves.

In School 8, one of the five measures was "education to include more contests systematically." There were drawing/painting contests, essay contests, speech contests, and knowledge competitions. Many of them were about safety. The school also had a contest between students in regard to health behavior, living habits, and hygiene habits.

School 9 conducted various activities, including a singing match, to make

students' lives richer. They also drew pictures and did calligraphy, and respondents told us that those who were good at it felt more confident.

Sponsoring signature activities

At least three schools in this study (but also schools visited prior to this study) held signature activities to show commitment.

School 4 held a signature activity in which students committed through their signature not to smoke. This encouraged students to sign their names to stick to the rules. A teacher reported, the “signature ceremony was held jointly attended by all the teachers and students—‘Say No to Smoking’.” In School 8, children and teachers signed their names to agree not to smoke and not to buy food from vendors. School 9 did a traffic safety signature for support.

Launching arts days and other festivals

Some schools had an arts day or other special festival.

School 2 held an arts day and encouraged all students to participate. Students believed the arts day provided a very good opportunity to bring out their potential and to show their abilities.

School 3 also had an arts day that provided a good opportunity for all students, especially for those who did not rank high, to bring out their talents.

School 4 had some important festivals: defense education week, health education week, the culture art festival, safety education week, science and technology

environmental protection week, civic virtues month, etc. The mid-term report stated, “During these festivals, we organized students to launch the relevant thematic activities of health education timely.” The school also held special activities on “great commemoration days” such as World Hygiene Day, World No Smoking Day, World Environment Day, World AIDS Day, etc., “We organized students to participate in various kinds of events. These activities strengthen students’ hygiene consciousness.” the mid-term report stated.

School 7 had an arts festival every 2 years where the students got a chance to give a performance, such as “singing together and doing things together.” Participants thought that through these performances, they could learn more about how to communicate, negotiate, and cooperate with other students. The school also launched a PE festival.

School 9 had a students’ evening party in which 80% of the teachers participated during their leisure time. Administrators showed us a picture in which the principal and some teachers did a performance during this students’ evening party. They also had performances such as dancing and singing to “cultivate values.” One of the school administrators wrote, “Meanwhile, school also held many other activities which are beneficial to the physical and psychological health of teachers and students, such as theatrical performances...”

Providing psychological consultation and care

Some schools offered psychological consultation.

In School 3, the “Strategy and Steps for the Program” in the newsletter stated, “the school should provide psychological health counseling services for students,

including having psychological counselors on staff and providing a psychological counseling mailbox.” Teachers reported that the school reserved one hour for psychological consultation after lunch, and the psychologist was in charge of the consultations. They had provided this service for the past 7 to 8 years. The school informed students about the availability of psychological consultations and encouraged students to consult a professional expert if they had psychological discomfort. This school was the first one in its city to have a psychological curriculum, and the first to have a hotline with a psychological consultant. (This was already in place before they participated in the HPS project.) One mother informed us that her daughter felt stressed before the final exam and got a cold. She went to the school nurse, and the nurse gave her not only pills, but also a comforting talk. So, even without pills, her daughter felt more relaxed. The cold was psychological and “not a real cold,” as the mother said.

School 4 provided a “mental state guidance station” that tested and analyzed students’ psychological health status and carried on psychological health education for teachers and students. In addition, according to the mid-term report,

[They launched] the psychological health education conscientiously, train students to have right personality. The psychological health education is the important component in the health education of our school. We have perfected the organization network of the psychological health education for many years, we have set up psychological coaching center. We require each teacher to bring the psychological health education into the classroom. We have opened the psychological consultation room.

School 5 provided psychological consultation, in a special room set aside for this. For example, the school held consultations with students or parents when a student failed an exam and it offered consultations about communications between the students and the teachers. Specially-trained teachers provided these consulting services. They also opened

a hotline for psychological consultation. Its name meant, “know your heart, know ... each other.” This was a channel for students to talk freely. Since the beginning of the HPS project, the school had an intimate “Close to Your Heart” mailbox for students. Into this mailbox, students could write their “secrets” which they might not want to share with their parents. The school considered this especially important during this “special time of adolescence” where issues such as the relationship between female and male students were very sensitive. There were also tutors available for students who had difficulties.

In School 6, the principal reported that they had psychological assistance stations called “know each other.” They offered specialized assistance, regular psychological consultation to solve psychological problems, and dissemination of psychological knowledge. Thus, they provided some special place that provided psychological assistance from teachers to students. A mother found this psychological assistance provided by the school quite important, because students were at a “very special stage.” If schools provided some psychological assistance at this stage, she thought this would “greatly help students to fully develop full health in the future.”

School 7 also offered psychological counseling and psychological workshops, as mentioned above.

In School 9, the person in charge of the HPS project explained in detail how they implemented psychological health in two phases. The starting period was from September 2004 until June 2005. They adopted consulting: face-to-face, group consulting, and activities in “daily educational work” such as placing more importance on individual consulting. They decorated and rebuilt consulting rooms and named the room “the home of your heart,” or Soul Garden, because they wanted to offer a chance for

students to cry out and solve psychological problems. Teachers helped students one-by-one, or students could write some letters to ask for help if they got problems. Consultant teachers got certificates by self-study. The school cooperated with professors of the municipal psychological hospital, and teachers often met with the professors. The main responsibility of teachers was to solve psychological problems. Students would discuss their “own conditions” with teachers to get help. If they found mental problems, teachers sent students to a hospital or advised parents to take their child to a hospital.

The person in charge of the project told us that the school offered group consulting for students, parents, and teachers. For example, they invited a professor to talk with students before examinations when students felt nervous. It was similar with parents, consulting by lecture. The school also highlighted psychological health by adding new content in academic education and by conducting lots of activities to offer psychological consulting and surveys. They opened a hotline; if students had problems, they could call a teacher. The phone number of this hotline sounded like “if you got a problem, just call.” Administrators told us that they also informed the students of all the telephone numbers of the main directors of the school, and many people called when they had problems. A female student mentioned that the school set up a hotline and fixed a telephone on a corner, but it was not very noticeable. If one paid a lot of attention, one could find it. On the school radio station, organized by students themselves, students could ask for a song or write a letter that might be broadcast on campus. Sometimes, they could ask questions.

The second phase started in July 2005 and lasted until the present. (We visited this school in November 2005). The school focused on two aspects: first, psychological

health of staff, and second, skills training. Administrators told us that they believed psychological health of teachers was important not only for the well-being of teachers, but it could also have an influence on students. They felt that the students of a teacher who was not mentally sound would suffer, and, if a teacher was not good in teaching methods, it was worse if students had mental problems. They also believed that psychological health was a source of—and tightly connected to—students' health. As noted above, training of teachers included buying books such as *How to become a qualified teacher* for each teacher. In October 2005, they conducted a group consulting. The main topic of group consulting was how to re-adjust the mental situation—how to release anxiety—because teachers had a lot of stress. They tried to create harmonious working surroundings so that teachers could have “a good mood to work better.”

School administrators mentioned that psychological help and psychological consulting services solved many problems for teachers and students. For example, there was a girl student “who was not in harmonious relationship with her teacher.” She experienced pressure when she faced the teacher, so she asked the psychological teacher for help. With the teacher's support, she became more open in considering this issue and she improved her ability to keep good relationships with other people.

The school also provided psychological consultation for teachers. Before the project, they did not notice that some teachers had psychological problems because of too much pressure, but during the project, they learned about teachers' problems through a survey. As a result, they attached more attention to psychological consulting for teachers. They found a high relation between psychological health of teachers and students.

Administrators offered a case of a student. There was a child from the rural area whose family was very rich because they ran a factory. The child, who was the only boy in his family, could get whatever he wanted in the family. All the adults tried to show their care and love for this child. When he went to school, he lost his superiority. He was not the center of people's attention anymore. Therefore, he easily got angry. After analyzing this case, the school addressed it in two aspects. First, they made the student understand how dangerous it was if he kept on in this way, and they helped him recognize that it was not very good for his own development. The second aspect was to ask the teacher to remind him what "the usual situation was" when it happened. They found that this child usually got upset when there were many people. If the teacher criticized this child, he might have felt that he lost face and he easily lost his self-control. The school tried to make some changes in teaching methods, and, after teachers worked with him, the child was able to control himself when he had quarrels with his schoolmates. The administrators told us that he learned how to find "faults" in himself, instead of in others.

Teachers told us another case. There was a young child whose father was a high official in the government. In elementary school, the child was spoiled. However, when he entered this high school, he lost his superiority. This child lived in the dormitory and shared one room with several other students. He did not perform very well in his daily life, including academic study, and his living behavior was not very good. He did not pay enough attention to his personal hygiene situation and appearance such as his nails, his trousers, and his shirt. Sometimes, his parents called his teacher—a young, female teacher—and told her that the child was saying that he did not want to go to school

anymore. When this happened, the teacher would call the child to have a discussion with him and to ask for the reason that made him stay away from school. During these calls, the child would be silent, and the parents would end up forcing the child to go to school.

One day, at the gates of the school, the teacher saw the child refuse to get out of the car. She decided to try something different. She let the child do as he wished and go back home, instead of forcing him to have a lecture. Then, she had a discussion with some other teachers who had more experience, and more psychological health education, to “co-work” about how to handle this situation. Following the discussion with those teachers, she met with the child’s parents, to talk about what happened to the child in elementary school and his childhood, and to get more information. After analyzing the situation, she found that because the child lost his superiority in the school, he refused to go to school anymore. When she found out the real reason, she felt very happy because it was easy for her to find ways to help the child regain his confidence and superiority. All she needed to do was to offer him a platform and to give him more chances to express his talents. In later days, she did so. For example, during the one-week stay in the farmland, the teacher asked the child to be a leader of the team, and when he led a group of students, he performed better. The teacher also gave the child opportunities to take responsibility for organizing all kinds of activities. For example, in a sports match, he broke the record in a 1,500 m race, all of the people treated him like a star, and he felt very, very good about himself. When the teacher talked to the child again to find out what he really thought of himself, she learned that he felt better about his psychological situation. After the child regained his self-confidence, he had the ability to do better in other aspects as well, such as academic study. The teacher also helped him with his

studying. He made progress in his academic studies, and he progressed and developed very rapidly in all aspects.

A parent told another story. A mother said there was something special about the growth of her child. When she was very, very, young, she lived with her grandparents, instead of her parents, and they spoiled her. When she grew up, the mother took care of the child, and she became very strict with her in daily life. But, the daughter felt very lonely, and she did not like to talk with other people. She could study very hard, and made very good achievements in academic learning, but she lacked communication with other schoolmates. Her mother thought that maybe her daughter felt that there was no common ground between her and other schoolmates. To respond to the situation, the school made two changes. First, in the classroom, two children shared one desk. Since this young girl was not very communicative and not very sociable, the teacher changed her next neighbor, and always chose some open, easygoing students to share one desk with her. Second, her daughter could only focus, at most, 10 minutes on what the teacher was talking about. So the teacher paid attention, noticed this point, talked with her parents, and they made some changes. For example, if the teacher found that she was not paying attention, she walked over and gave the lecture standing next to this girl, instead of asking her to pay attention to what she was listening to, thus, to avoid making the student feel embarrassed. The mother reported that she and her husband felt very happy about this.

Offering physical examinations and health services

Schools offered annual health check-ups and prevention and treatment services.

In School 1, teachers told us that they had to go to the hospital to arrange medical check-ups for students, and the school had students' blood tested once each year. The week before our interview, they took students to hospitals for a blood test and shared the results with the parents for the first time. In 2002, all students ($n = 1287$) did a health check-up at an army hospital, given free of charge. The examinations covered, for example, teeth, eyes, allergies/sneezing, and the school found that one student had "heart disease." After the check-ups, the school distributed the results to the family and the head teacher and kept an office copy. In the report to the family, the school reminded parents of the importance of "the state of their child" and gave specific food instructions to address the problem—for example, to feed the child spinach or animal liver to address deficiencies. Then, the head teacher paid home visits to parents to "watch what they do." They also did a class activity to educate students who had a nutritional deficiency. The student who had heart disease was exempt from physical education, and a student who had diabetes received a glass of sugar water from the head teacher before school activity.

School 2 provided medical check-ups once a year for faculty as well as students. In School 3, the school nurse was the administrator in charge of students' and teachers' health check-ups. This was also her regular work. After the project started, she "regularized" her work well, according to WHO standards. According to "Strategy and Steps for the Program," School 3 planned to do the following:

Health services: will provide periodical student physical examinations; will establish student health files; will have standard prevention and treatment measures for commonly occurring health conditions such as nearsightedness and cavities, etc.; should be able to resolve problems that teachers have concerning health.

School 4 also provided regular physical examinations for the students and staff.

They had a school physician room which, according to the mid-term report,

... carried on the propaganda and training of promotion of health ABC to students, the cultivation and guidance of students' personal health technical ability, it popularizes the preventive treatment knowledge of common diseases. It carries on the check, statistics, create file, analyze to the healthy condition of students and make the feedback and system intervention in time.

The routine health inspection included, according to the mid-term report, to "carry on the physical examination to students regularly each term, and do the record conscientiously, pinpoint the problems and contact parents in time." Administrators reported that they found that, "more than 99 percent of students are well-conditioned about physical health." In addition, the school offered services for the prevention and treatment of common and infectious diseases. According to the mid-term report, they provided "measures to prevent and cure various kinds of common diseases, propagate the preventive treatment knowledge of different common diseases in a more cost-effective manner."

School 5 had a physical examination center for teachers and students, which provided a thorough medical examination once a year for students of the whole school. The school sent the examination results for every student to their parents, accompanied by suggestions from medical experts.

School 6 offered regular annual physical exams for every student and provided physical exams every 2 years for staff. They established health files for students and teachers, and they gave feedback to parents in a timely fashion and provided suggestions regarding treatment. They also had an independent medical station with two staff with certificates as primary care providers and two nutrition advisors. Two school doctors

were on duty 24 hours a day and could escort students to a hospital for treatment. They also took measures to prevent infectious disease and vaccinated students. In addition, teachers asked two doctors to give presentations and “guide the student health knowledge, irregularly.”

School 7 had a health service that offered and documented physical exams and operated 24 hours a day. School 8 had a regulation about annual physical examinations for students and teachers. A doctor from the village examined the students. Since School 9 paid more attention to the health of teachers and students, now they did annual body checks.

Checking students' appearance

Some schools checked students' appearance. (We had heard this also in the pilot project.)

In School 2, the student union would check students' fingernails, to determine whether they were clean.

In School 4, the mid-term report stated,

We heightened students' healthy life's awareness by checking students' appearance, students' daily behavior. For example, every week we check appearance of all the students. Now students have good personal hygiene consciousness, they wear neat and natural clothes, they do not have phenomena such as long hair, having hair dyed and wearing the long nail, etc.

School 7 daily asked students to pay attention to behavior.

In School 8, a teacher told us that before the project, students did not pay much attention to their hygiene situations. After the project, the teachers asked them to make some lists about what to do to stay clean and tidy (e.g., regularly cut hair and nails).

Encouraging physical exercises

Schools offered a variety of physical exercises and eye exercises to prevent the common nearsightedness.

In School 2, the headmaster informed us that to improve students' psychological and physical well-being, they encouraged outdoor sports, had rules, had self-activity classes, and students could not stay in the classroom but had to go outside. Students said one very good change was that teachers used multimedia to check if they did their eye exercises.

School 3, to keep the tradition of their founder with a modern concept, already organized a lot of sports and team activities such as football, basketball, and baseball matches. In School 4, students mentioned that the school tried to persuade students to take more time with physical activities.

School 5 also provided opportunities for physical activity and organized its first military training, which was like concentrated physical activity and required discipline and self-discipline. The school had improved various kinds of sports equipment and encouraged students to participate in matches of various kinds and levels such as basketball, mountaineering, volleyball, football, and track. Students did eye exercises three times a day.

School 6, as a special feature of the HPS project, established morning exercises which "let students get up early" and ensured enough time for breakfast and cleaning their rooms. All the groups we talked to—school administrators, teachers, students, and parents—mentioned these morning exercises. A student said that the morning exercises

were not only to increase their physical activity, but also to encourage other students to participate in exercises. The morning exercises could also help form good habits about “early wake up and early get up.” Teachers said that another thing added besides regular physical activity required by the course was a competition, a basketball match, and another match to try to develop the students’ physical health.

In School 7, every morning, all students had to run to help them improve their health. The year before we visited the school, administrators had invested 100,000 RMB (~\$12,480) for sports facilities to ensure 1 hour of physical activity every day for each student. All younger students had to take physical exercise, in addition to PE. Students told us, “Every year in school, there is a sports match, participated by students, and also there are regulations that all students have to run in the early morning. ... because in China, there is a saying that the physical health is the most important points.”

School 8 also had physical exercise activities. The principal reported that the school was good at sports: they obtained a first prize in a ping-pong match of elementary schools, they had a basketball match for boys, and they ranked on top of the list of a county sports match.

School 9 conducted a basketball match, and they cancelled the army training. We also heard in this school that it was hard to reserve 1 hour for physical activity each day because of academic subjects, the number of students, and the lack of a playground. Instead, they had big, monthly sports events and encouraged students to do physical activity voluntarily.

Broadcasting through school radio stations

Some schools had a radio station.

In School 5, many participants told us that the school had a radio station, called “voice of schoolfellow,” that addressed topics of life and health. It provided psychological programs from 8:00 to 8:30 on Monday and Wednesday, every week. Students chose articles or got knowledge from the Internet and got it broadcasted throughout the campus.

In School 7, the radio station broadcasted health messages. Students told us, “There is also a radio station in school, and at a fixed time, maybe about eleven o’clock to twenty eleven o’clock, they will broadcast some videos, some information about healthy living.”

In School 9, as reported above, students could ask the school radio station to play a song, they could write a letter that the station might air, and sometimes they could ask a question. The students organized the radio station.

Providing nutritious food

Schools provided nutritious food.

School 1 paid a lot of attention to having nutritious lunches. The school canteen got recipes for nutritious food from the community hospital for lunch. Teachers could eat with students in the school dining room if students were “particular with foods” and gave them instructions to eat all foods. Parents said that the school made special menus for students who were overweight.

In School 2, the canteen was under the control of the Normal College to which this school was attached, but it offered a special menu for middle school students.

Administrators got a nutritionist to give advice how to make a nutritious menu for junior and middle school students. A parent reported that the school decided to have a special balanced diet for each grade. Students were encouraged to check with the canteen to find out if they had a balanced diet. A male student thought it was very good that the school allowed students to choose how much rice they wanted to eat. This helped to prevent waste and also helped poor students.

School 4 started to provide fixed meals so they could make sure students could get a balanced diet. Each day, the dining room offered a different, balanced, colorful meal. As a student told us, this nutritious food “is warmly welcomed by students and teachers.” In the dining room, we saw that each table had posted notes with reminders about the responsibilities of each student who sat at the table, and oranges were set out on the tables, presumably for dessert. In the kitchen, cooks were using fresh ingredients to prepare the food.

School 5 also paid attention to providing nutritious food, strict hygiene control in the dining hall, offering balanced meals, and encouraging kitchen staff to have training. A chef earned a certificate that year.

In School 6, a special feature, mentioned by many of the people we interviewed, was that students had an IC debit card with which they could buy food. Since the HPS project started, the school allowed students to put more money on the card so that they could buy nutritious food rather than instant food or snacks only. For example, if the limitation was to put only 20 RMB (~\$2.50) a time on the debit card; now it increased.

The school realized that, if students just put 20 RMB (~\$2.50) on the IC card for a week, then by the end of the week, they would probably use up all of the money on the card and needed to buy some of the cheaper items, like fast fried noodles. If they could put more money on the IC card, then by the end of the week, they still had some money left, so they did not have to buy cheap things, but could buy more balanced, more nutritious food. The food variety had increased and there were more choices in the dining room, including a variety of vegetables. Students told us that in previous schools, usually they had fixed vegetables and fixed bowls, as well as chopsticks. They used to be very concerned whether the bowls and chopsticks were clean or not. In this school, they got very clean bowls and chopsticks.

School 8 had a “say good-bye to snack food” event.

School 9, according to the person in charge of the HPS project, offered “dinners full of nutrition” which included two dishes, one meat and one vegetable, and soup. Kitchen staff had certificates, which meant they had a high awareness of health and hygiene, and the school had professionals who did the cooking. The school discouraged buying “unqualified food.”

Instituting safety measures

Several schools addressed safety and prevention of injury.

School 6 asked policemen to come in front of the school to direct traffic when students left the school for the weekend, because the streets in front of the school were big and could have traffic problems. After the project, the school had a security office

that worked 24 hours a day, and also had video monitoring to ensure the safety of the students, as well as the property of the school.

In School 7, students told us that the school paid a lot of attention to students' safety. For example, every Friday, before students left to go home for the weekend, the teacher would tell them that they had to take care of themselves, and they would highlight the importance of safety. At the end of each semester, the leaders of the school also emphasized this point. When students arrived at home, they had to call their teachers to inform them that they arrived safely.

School 8 did not allow students younger than age 12 to take bicycles. Instead, the school opened a shuttle bus service for children who lived more than 3 miles away. It ran four times a day, and the cost for students was 1 RMB per day (~ \$0.12). The local government supported other expenses. Without the bus, students would have paid 3 to 6 RMB per trip (~ \$0.37 to \$0.75). Every day, a teacher was responsible for the bus transportation. Teachers also escorted students as they walked out of campus and walked home. A policy required the school to arrange for one teacher, each morning, to be the first to arrive at the school, to stand at the gate, and to welcome students. The teachers should safeguard their students, and they could not leave until their students arrived home safely. The school also gave each student a yellow safety cap that they wore when they went to school and when they left the school. When all the students wore such a cap, it made them feel very different and very honored. One of the parents said that the achievement of the HPS project that she cherished most was the yellow safety cap because when the students wore such caps when they crossed the road, it could arouse

attention of the drivers. She felt that the caps decreased students' risk of injury from traffic on the road.

In School 9, the road outside the school gate was very busy, and it was not safe for students to cross the road. With the implementation of the project, the school invited traffic policemen to guide and to maintain the traffic situation—mostly when school was dismissed—to safeguard children when they were trying to cross the road and to protect students from injuries.

Forming unique student groups

Some schools had unique student groups.

In School 5, the four-student group, which was encouraged by the former principal, included advanced students, normal students, and slower students. The students taught each other, communicated and cooperated with each other and supported each other, and when one student got behind, they helped him or her along. As one parent said, “the four-student group is worth to be developed and expanded, because the four-students can take care of each other. If one student is behind, the other three students will do their best to help this student. So the four-student group is not a personal center. It is team-centered. This is encouragement of the teamwork.” With the help of the four-student groups, even slower students could win awards at the end of the semester.

School 6 had a slightly similar feature, called “companion health education association,” which many participants talked about. Students created this activity, and it was related to students' caring for and educating themselves, including educating each other about AIDS/HIV, puberty, adolescence, and mental health. Before students formed the association, education was just one-way, from teacher to student. In forming the

association, they created an interface between the students so the students could communicate via this association.

School 7 had a student self-management association that teachers did not supervise, though teachers were the main advisors. We did not gather much information about this student self-management association, but we heard that a class committee and students committee promoted the idea of health, and that might have referred to this association. We also heard that one of the female students who participated in the interview was “the leader in the classroom of students, so she has the responsibility to spread this knowledge to her schoolmates.”

Outreach activities

Outreach activities included disseminating information to parents, disseminating information to communities, conducting social research and engaging in social practice.

Disseminating information to parents

Schools distributed information to students’ parents.

In School 1, the principal reported that they distributed 8,000 materials to students’ families. The school gave to families printed suggestions for a balanced menu for dinner and breakfast, and the school “let parents know” the importance of a special menu for obese children. The school also made parents aware that children suffer from diseases, or have the tendency to do so, so they understood the importance of adjusting their menu in support of health. The school gave guidance by issuing written materials

about nutrition. A mother mentioned that the school issued letters to parents: a 6-page letter in 2000, a 2-page letter in 2003, and a 2-page letter in 2004. The letters classified food in seven elements of nutrition, informed parents that May 7 was Nutrition Day, and included information about the importance of washing hands before a meal. The mother said she thought these letters were really “significant and beneficial to her family.” Before she received the letter, she did not know why “skin came off,” but after reading the letter, she learned it was a lack of Vitamin B, and she followed the letter’s suggestions. The mother’s child and her husband also read the letters.

Parents also attended lectures that School 1 provided for them. For example, on June 1 for Children’s Day there was a lecture on “I am marching on with nutrition and health.” Experts from the city CDC gave lectures. The school also had a special research class to educate parents and families, as well as students. The school nurse told us about a school camp in which parents participated and about a sports match in which parents and children took part together. Parents did not seem to remember the camp and the sports match, or they were not able to participate.

In School 2, students said that the school sent two advocacy letters to parents. A parent, who also worked in a hospital, mentioned that teachers regularly did home visits. At the time of our visit, School 2 had conducted activities with parents for junior students, but not senior students.

For School 3, the implementation steps in the HPS newsletter said, “Head teachers will regularly inform parents of the activities of the program. The school will hold regular meetings to gather suggestions from parents and to encourage them to support the program.” All students were boarding, most went home only on weekends,

and the parents interviewed felt the school was doing well with communicating with them. A mother reported that the school contacted parents regularly. Head teachers called parents and reported their children's conditions. One mother remembered receiving a letter from the school saying that the school was to focus attention not only on students' physical well-being and study, but also on psychological well-being. The other mother received a letter but could not remember it well. While the school invited parents to participate, this mother had no time to do so because she was a teacher in another school.

In School 4, school administrators told us that they communicated "the knowledge of the harmful effects of tobacco" to the parents. The school also increased some of the communications between the child and the parents. They asked students to write something about "bad things about smoking," then they tried to encourage students to communicate with their parents by asking their parents to write down their experiences. The school's plan was for parents to distribute knowledge of the negative consequences of smoking to relatives and friends.

School 4 participants also told us that the school offered a variety of other activities for parents. As the school's mid-term report stated, "To the parents, we have launched parents' meeting, parents' school, a school contact card." Students informed us that in each class, the parents came to the school to have the meeting. One of the teachers thought that comments from parents, and the establishment of "parents' schools," were some of the helpful aspects of this successful school health program. They also held special meetings with interactions between the parents and the students to increase some of the interactions.

In School 5, children informed us that they shared some of their new health knowledge when they talked with their parents. The school also held special meetings for parents during which parents were educated about health and then examined to determine how much they learned. Regular meetings for parents also taught them how to communicate with their children.

School 6 encouraged students to communicate with their parents and issued materials about nutrition and health. Students said, “I pay more attention to my health and I will share my knowledge about the health and nutrition with my friends and my family” and “Pay attention to individual health and nutrition and introduce knowledge to my family and friends. Encourage them to pay more attention to the importance of health and help school in extending the project.”

Students told us they believed they could help by publicizing the knowledge to community and families and “talking with their little brothers or sisters about what sanitation is and so on.” A mother told us about her son who, before the project began, just paid attention to a few things, such as having some fruit daily, and he told her, that healthy eating was “related to the female, not the male.” After the project, her son actually talked to her about the importance of nutrition. For example, he asked her to let him take fruit to school daily and he taught her about a healthy diet in this school.

In School 7, school administrators told us that they did a lot of work to improve the negotiations and communication between the school and the parents. For example, they usually gave a call to the parents regularly to exchange opinions, to inform parents what was happening with their child, and to give an update on the present situation. They also held some parents’ meetings at the end of each semester to teach parents common

knowledge of health and disease prevention. According to the school, almost all of the students' parents attended the annual parents' meeting (93%), even those who lived far away. The school wrote a letter to the parents of each student at the end of each semester to ask parents to pay attention to their child's health. When the students went home during their summer or winter vacations, the school asked them to explain the contents of the students' handbook, with basic knowledge about health, to their parents. Then the parents offered their feedback to the school.

A mother told us this story: Since both father and mother were working outside the city, the family could only live together during the summer vacation. During that period, the daughter found that her father liked drinking very much. When she went back to school, she wrote a letter to her father to tell him that it was not very good to drink too much. The mother was very impressed. Furthermore, when the mother and the father came to the school to visit, the father did some fighting or "uncivilized behavior" at the gate of the school. When this happened, the daughter told the father that this behavior was not right.

In School 8, the surrounding community was less developed. Many parents worked, and many students had to rely on their grandparents for their care. Children passed on information to parents, and teachers visited students' homes to learn more about their specific situation. Teachers also wrote letters or called parents to update them on how their children were doing in school. Each semester, the school sent at least 3 to 4 letters to the children's home to inform their parents of some knowledge of safety and "how to regulate their child and their own behaviors, in daily life." Parents believed this was helpful both for the children and their parents. One mother thought that if the

students could serve as a bridge to spread this knowledge, it was better for the parents, and better for the community “because children were less than parents or adults,” and when children said something, the adults would pay more attention to it. When teachers told the students to do something, the students would treat it as assignment, as homework. They paid a lot of attention to their teachers’ instructions, and, when they went home to tell their parents, the parents had to follow the instructions, too. Parents considered this approach better than adults spreading the knowledge to each other.

A father told us that, because they were living in a village, they did not pay much attention to the hygiene situation or healthy living habits. He said this changed after the implementation of the project. When the teachers emphasized hygiene and healthy living habits, the children learned more, shared it with their parents, and the parents had to follow their health advice because parents should set good examples for children. During the project, children learned many things about health and the prevention of disease, such as chicken flu or cholera, that they shared with their parents. One parent informed us that their child told them what to do when they faced a fire alarm or a robbery and told them that they should brush their teeth every day and wash their hands after they went to the washroom. Children also told us that when they saw their fathers or relatives smoking, they told them to “put it out.” The vice headmaster thought that it was helpful to visit parents, send letters to parents, and make phone calls to parents to explain about this project to them. Each semester the school would also invite parents to a parents’ meeting, to exchange different opinions and views. Parents told us that the connection between teachers and parents “became patterned”; they had more communication and exchange of feelings.

In School 9, we learned from a teacher that the one-child policy was implemented in 1979, but even though families had only one child, the communication between parents and children decreased. This school communicated with families through home visits, telephoning, letters, and chatting through the Internet. During the HPS project, the contacts between school and family became more frequent. Teachers made home visits and telephone calls to get information about students' families. In the past, they used to do this without informing the students, but, after the project, they talked with students before they made a home visit to discuss what information the children wanted them to share with parents and what they did not want to share. Teachers felt this could avoid quarrels in the family. Also, in comparison with Western children, teachers thought Chinese children might not be so sociable and open. So, by talking with them before visiting their parents, the teacher would understand what the children really wanted them to share, and that made the child feel more comfortable. They also had conferences between teachers and parents to work jointly, and they offered some guidelines and structures to help the parents behave in their daily lives. School administrators thought that in this modern society, children could get so much information that sometimes it made it very difficult for parents to understand what their children really thought about.

School 9 provided a lot of "explanations and publicizing works," and organized a lot of parents' meetings, trying to make more parents understand what is meant by health, and to let them know that the school was going to adopt the HPS project. For example, in the parents' meeting, the teachers would emphasize, many times, how important psychological health was, and they tried to persuade parents to communicate more with their children. Some children did not listen to their parents, in "such a sensitive age"

(which probably meant during puberty and adolescence). In this situation, the school tried to persuade the parents to be more active. Teachers told parents that they could initiate communication instead of waiting for their children to come to them, and many parents followed their advice. By doing this, more and more parents realized that even though the children were very young, they still had their own thoughts.

For “parents’ school,” administrators invited experts to offer workshops with special topics. For example, they invited some professors to give psychological education lectures to the parents, to make them “know more and understand more about their children.” When children went back home, they would find it more comfortable, and more easy to communicate with their parents. School 9 also shared studying materials with parents, so they could “learn some knowledge by themselves.” Whenever the school found some good materials about family education, they collated the articles as a textbook and sent it to the parents. In doing this, the school wanted to help parents and “make them know more, and understand more about their children.” The school also ordered some magazines about family health to try to educate the parents how to be “good and qualified parents.”

School 9 also did “some experience works” that helped students understand their parents by experiencing the “real-life” world. For example, the farm visits (described below) provided an opportunity for children to experience what many of their parents had experienced so that they could better understand their parents. Children sent a letter from the farm to their parents expressing their love. (In China, people do not express feelings directly, so they wrote them down.)

Disseminating information to communities

Schools “disseminated knowledge” about health promotion in the nearby communities.

School 1 invited parents, students, and people in the communities to take part in the activities. They put on shows and performances to attract people’s attention and to demonstrate which food was nutritious. According to the principal, this activity could help people learn if their diets lacked nutrition elements. Teachers also took students out to the community to do “publicity,” and the school told owners of restaurants to pay attention “to the nutritious state of food” and to sell nutritious food to students.

In School 2, school administrators reported that they reached the community by communicating with parents who passed on information to the community (this was a new region with just a few citizens living there).

In School 4, the mid-term report stated that,

The healthy education is in daily pursuit of the school, it also has gone deep into students’ families, the street communities and other schools. ... Supported by communities and street residents committees, we often organize students to go to the residential blocks to propagate health knowledge, grant the propaganda materials of the health education, these activities have improved health consciousness and technical ability of residents of communities of residential district effectively.

The report also gives specific examples:

The environmental propaganda team of the school goes to the community to launch green environmental propaganda, advocate community’s residents’ green consumption, organize volunteers’ service team charge the green belt of urban area, clean the highway section of responsibility, some Young Pioneers go to old men’s paradise to look after them.

One of the parents mentioned that a great difference before the health promotion project and after the health promotion project was that “before the project, something

changed just within the school. Now the project has extended to the societies to outside the campus. So that is the interaction.”

In School 5, students went into the communities to disseminate knowledge of health promotion.

In School 6, the principal reported that in September 2004, students from the cooking class disseminated knowledge. In November 2004, students went to two communities to give health lectures and information regarding nutrition, distribute materials and repair electro plants. (Repairing electro plants was related to this school being a vocational school, so it gave students opportunities to practice their skills). One of the administrators mentioned that one of the “quite important things” was dissemination because if people understood health promotion, they would pay more attention to health promotion. A student acknowledged that health promotion was not just limited within the school, but also needed to be expanded to family, parents, and community, and also to some senior citizens service, for older people.

School 7 was actively involved with the community, and the community asked for the school’s support. The school organized activities in which students and the community participated together, such as sports matches with the community and with a students’ team. This built a “harmonious school-community relationship and support for each other.” During some holidays, the school arranged for students to go into society and do some “social activities,” such as publicizing this project and making more people know about their school. By doing this, the students could have “a real contact in the society to experience something and make them more confident.”

In School 8, students wore a red scarf (which is the sign of the Young Pioneers), went to the community, and asked people to stop throwing garbage away and to follow the traffic regulations. To expand the project into the community, students also cleaned the road. We heard that the new playground was also open to the community so that village workers could come and get some physical recreation.

When School 9 implemented the project, school officials asked for relatives of parents to participate. The school extended participation in various activities “across the society and to influence the surrounding areas.”

Conducting social research

Schools conducted surveys and research among the community.

School 1 gave parents questionnaires to fill in as part of a “social survey.” While we did not see the survey, school administrators told us that it covered many topics including “how to protect eye sight, teeth, attitude toward non-smoking, attitude toward school project.” The school developed the survey, and the questions addressed parents, children, and community. For example, one question asked parents what they thought should be done about the obesity problem. There were also items about children so that parents could learn what children really wanted. The school also gave questions to children, asked children to make suggestions to their parents, and shared children’s responses with parents. From children’s comments, parents could learn what children wanted.

School 4’s mid-term report stated that, “the studying group of the school launches the overall arrangement rationality investigation and research of urban shade tree,

atmosphere and water quality pollution detection of hometown, etc.” Teachers’ comments on research that was conducted included, “Successfully launched the research about the sanitary condition and health habits among teachers and students,” “different kinds of activities were held, such as research activities during holidays, ... as well as other activities of health improvement research,” and “with the measures of popularization and research, we try to encourage more people to grasp the knowledge about health.” One of the students mentioned that they had done research about smoking control.

In School 5, teachers told us that students did “social investigations” by themselves. For example, this included conducting surveys in the community and in companies about feelings among family members or about the environment and water protection. In addition, each class or teaching and research group also had an adopted target group to which they donated money irregularly, helping those to “grow healthily in the community or in the school.”

School 9 also adopted a policy to encourage teachers to combine the idea of health with their own research, which was different from the subjects they taught. One female teacher researched how to raise the awareness of students to ask more questions in the classroom. UNESCO had recently pointed out that in the twenty-first century, people should learn how to survive and how to learn. One of these ideas included that one should learn how to ask questions. Therefore, this teacher chose the topic as her research. The section about new teaching and learning methods reports her main findings.

Engaging in social practice

Particularly in School 9, we learned how students engaged in social work.

In School 9, school administrators asked students do “social work.” Participants thought this helped students understand parents, teachers, and interpersonal relationships better, as well as engaging them in serving society. Social work included going to visit senior citizens and helping them and gathering food for senior citizens and for orphans. This gave students a chance to understand those living in poverty. During the previous autumn holiday, they invited poor students to a gathering. Saturday was “parent day” when students would do things for their parents as an expression of love from their son or daughter. Each semester, they had a contest, such as housework or cooking, so they could show what they learned and how they did it at home. It was also a way to encourage them to do it daily.

In School 9, many participants talked about the visits to the farmland. Accompanied by teacher chaperones, high school students in Grade 2 left the school for one week to live on a farm and to learn skills to take care of themselves. Students did a number of different activities in the farm field. During this week, they had to leave parents and their care, they gained a strong impression of how deeply and much parents cared for them every day, and they missed their parents. Teachers asked students to write a letter to their parents to inform them and to express “their miss and love of parents.” We were informed that in China, people were not used to express their feelings directly. So writing a letter was a better way for communication. When back home, some students would bring special gifts such as self-made cookies or plants. This would help them to express what parents did every day and how hard it was to take care of themselves.

Participants told us that it also improved communication with parents and students. The municipal Department of Education attached much importance to this activity and the principal also joined in.

Administrators and teachers told us about one case of a girl who had a stepmother whom she did not like very much. Her father was a rude man, and he was considering committing suicide, but the stepmother treated the child very well. Yet, the girl never called her stepmother “mom.” After the girl spent several days on the farmland and did a lot of housework, she changed her thinking and came to recognize the care of her stepmother. When she came back from the farm, she bought some gifts for her stepmother. These things made a very deep impression on her father, and he felt very happy about the changes. He wrote an article for the evening local newspaper to show that the labor changed his little girl, and he felt very grateful to the school. The girl, when she came back from the farmland, started to call the stepmother “mom.”

The school also encouraged students to show more respect and love for parents, for example, by brushing shoes, hair care, and doing housework. Students did these activities and made parents feel good. One mother told us that the previous October when the school had the activity for children to spend one week in the farmland, she did not feel very relaxed when her child went there. When her daughter was due to come back, she was so worried that she arrived half an hour early to pick her up. To her surprise, when the door of the car opened, she found that her daughter had two shoe cases. One was for herself, another for younger schoolmates. The mother felt that the daughter was grown up, because in the past, in her family, she never did such things. After the project,

she could even take care of other people. The mother felt it was amazing progress for her daughter.

School 9 also asked students to sell goods in shops. In July, they organized some students to “do the selling jobs” in one of the biggest shopping malls in town. Administrators told us that, after one day of hard work, the students felt very, very tired, they gained insight into how hard the adults have to work, “and they also came to know that even they worked very hard for one day, they still had no chance to get their business done.” The school believed that this activity made more students realize that it was not very easy for their parents to make a living. After their experience in the mall, the school asked the students to write some essays, to tell what they really thought about it, so they knew “more things of the real life,” and they showed more respect for their parents. Administrators thought it was also a good way to encourage students to study harder.

The person in charge of the HPS program reported that they taught people “modern manners” and how to be polite: “do not use dirty language, do not bully, respect each other equally.” Since 1994, School 9 had followed their own system of politeness education: Honesty, integrity, self-esteem, responsibility, patriotism (to be a citizen of the nation). “Cherish your life and seek for yourself improvement as individuals in society.” The person in charge of the HPS project told us that “the Health-Promoting School is to focus on how to survive in society and to behave good in society as a human being. The ability to adjust will help to adapt to a new situation and to adjust to the environment. Life values addressed how to become loving, helpful, ready to help, respectful, making contributions to one’s hometown, handling problems during growth, and being self-motivated. Interpersonal skills included realizing self correctly, helping others, respecting

self, communications with different communities, choosing good friends.” Parents reported that teachers would ask children to give a lecture on the stage, in front of the whole class, to encourage them to feel confident. The school also paid a great deal of attention to developing other abilities and talents of students. More and more students were granted prizes in different activities.

Efforts to change the school environment

The schools paid a lot of attention to setting up good physical (“hardware”) and psycho-social (“software”) surroundings. Activities included improving facilities, enhancing cleanliness and beautification, assuring a harmonious psycho-social school environment, and maintaining a caring atmosphere.

Improving facilities

Schools sought to improve and upgrade their facilities during the HPS project.

The principal of School 1 reported that the school made great efforts to improve facilities, including teaching facilities: they reconstructed their dining hall and enlarged its space and they constructed a multimedia classroom. They built on and expanded their past efforts, which included beautification of the school environment.

For School 3, the “Strategy and Steps for the Program” in the newsletter stated, “the school should provide sanitation facilities that meet sanitation standards.” The principal mentioned that one of their three priorities included creating a good environment for students, school, and community, to have good health and allow students

to grow in a healthy environment. The school emphasized the concept of “everything for students” by bettering the facilities according to the standards set by WHO. A “No Smoking” sign was posted in the conference room.

School 4 “fought” for funding from the town government to improve its hardware facilities: to set up an apartment-style dormitory building for teachers and students, to establish an auxiliary facility in the dormitory building, and to buy multimedia equipment for more than 10 classrooms. The mid-term report stated,

Now we have two teaching buildings, an administration building, an experiment building, a comprehensive building, a standard stadium of annular way of 400 meters, a fitness field, 5 basketball courts and volleyball courts, two dormitories of teachers and students of an apartment type and two dining-rooms. The flowers and trees are lush and green in four seasons in the campus, the vertical afforesting rate is more than 80%.

School 5 improved its facilities and classrooms. The school reported having “carried on an overall assessment on the safety, the convenience of different facilities We have improved some facilities that had hidden danger.” Students reported that the school now had more and improved sports facilities and more computers and media projects. Teachers told us that the school required students to wear uniforms; they felt the uniforms were part of good discipline.

School 6 also improved its physical environment. The principal reported that structures and facilities met national security and sanitation standards. The school had sound health facilities: toilets for men and women that met national standards, drinking water for staff and students, and a dining hall with clean water. The dining hall held 2,000 staff and students; every staff member in the dining hall had a health certificate, and No Smoking signs were posted in the dining room. Physical activity facilities included a gymnasium of 4,000 square meters, eight outdoor playgrounds, an indoor

comprehensive sports center, and tennis and ping-pong facilities. A teacher mentioned the physical surroundings had changed very much, and they had necessary equipment, including some fire fighting facilities. The school also had a small store. As a mother mentioned, such a store should not have any cigarettes, like this school had no cigarettes in their store. She felt that other schools should not have any cigarettes in their stores, either, because, eventually, students would be the consumer. The mother also said that she believed the school store should not let people from outside manage the store, because their main goal would be to make a profit, and no school store should make a profit.

In School 7, many people told us that the school environment was improved. The school invested a lot of money in rebuilding the dining room and upgrading the facilities of the school and the dormitories. For example, one of the students responded, “The most important outcome [of the HPS project] is: the environment is getting better and better. Students and teachers can have better life here.” The vice principal informed us that since they implemented the HPS project, the school made substantial improvements to their facilities. They invested 100,000 RMB (~ \$12,485) for sports facilities and invested 400,000 RMB (~ \$49,940) to build a toilet for each dormitory room with eight students; before, there was only one toilet per floor. Several students also mentioned this improvement of having a washroom in each dormitory room and one student said this “provided convenience to all students.” In the year that we visited the school, the school was spending 200,000 RMB (~ \$24,970) to renovate the dining room. School 7 did not require students to wear a uniform.

In School 8, administrators told us that they tried “all the ways” to protect children, and they created a sound environment so students could study well and live well. The very frequently mentioned improvement was the school environment, and in particular the improvement of the playground. School administrators thought this was the greatest achievement of this project because the playground used to be a land full of earth—not very convenient or comfortable. On sunny days, when the wind came, the earth blew up. On rainy days, it was very muddy, and the classroom was covered with dirt. After the project, and since the playground had been rebuilt, it was better for the students and for people from the village to do physical exercises. They also added a gate to the schoolyard with a little office for the safety guard, and, as a teacher said, many buildings were new. Since 2004, the school also had student paintings on the topic “Prevention of injury Health-Promoting School” on a school wall. The school made a big investment to improve their facility structure. According to the principal, the total investment was 400,000 RMB (~ \$49,885), and they wanted to invest 900,000 RMB more (~ \$112,240). They borrowed some of the money.

The vice principal informed us that he had been working at this school for 14 years and there had been very few changes in the last 10 years. After the school started becoming a Health-Promoting School, there were changes. As mentioned earlier, the school also started a bus service for students to go to and from school. A mother mentioned that many vendors used to set up their booths outside the school and sell “unqualified food.” After the project, a bus took children home directly, so there was no more business for the vendors, and they moved away. The principal informed us that each classroom had a “healthy corner” with information about health, and signs on the wall

that regulated students' behavior. One of the school administrators wrote, "With launching of the Health Promotion School project, big change was witnessed in this school, such as the school environment is improved and the campus becomes more beautiful." A parent mentioned, "Before the school's ground was dirt and sand everywhere and now it has been changed into very nice cement brick ground."

In School 9, the person in charge of the HPS project reported about their surroundings. They had a working office for teachers, newly decorated rooms, and psychological consulting rooms. In the kitchen and dining room, they modified some equipment and changed to stainless steel. During implementation, if they wanted to reach WHO requirements, they needed lots of work on dining room and dormitory improvements. They asked the municipal Education Department for more financial support. During the year that we visited the school, they invested 1 million RMB (~\$124,828) for rebuilding the dining room and "equipment and building improvement." They rebuilt the dining room and it was "the best one in the whole city." There was only one of this quality. It was ranked "A" in the national Health Department standard—equivalent to a 5-star hotel. (They were very proud of it.) The school also provided safe drinking water. They made a contract with a factory for drinking water. To keep the water safe, staff randomly went to the factory without notice. To maintain plants, they employed 2 professionals.

School 9 also had three dormitory buildings in which 360 students lived. The person in charge of the project told us that the school created a sound environment with "hardware" facilities for physical exercise and separate toilets and "software" of sound values and harmonious interpersonal relationships because providing healthy and good

surroundings could make students feel good. On each floor of 30 students, a special teacher was responsible for daily life. The dormitories offered nutritious dinners.

Students studied at night until 6:30 pm, and the school offered food after the 6:30 pm study time. Many of the people we talked to mentioned that the environment and

facilities of the school were improved. For example, a school administrator stated, “The environment is improving and the reputation of the school is getting better and better,”

and teachers mentioned, “The hardware part of the school is more complete and the atmosphere is more civilized,” and “The environment of the school has been improved

greatly, which provided the convenience to teachers in teaching and students in study.”

Parents wrote, “Meanwhile, facilities such as dinning room and computer classrooms are improved and the campus is more beautiful with more afforestation areas” and “The

playground is the best among municipal level schools.”

Enhancing cleanliness and beautification

Schools enhanced their cleanliness and sanitary conditions and had beautification projects.

School 2 held a dormitory beautification competition for excellent dormitories in regard to health and hygiene. The majority of students were active in this competition. During the competition, students were encouraged to bring in plants and fishbowls, etc. A female teacher told us that when she was on duty doing a dormitory visit, she did not pay attention to the regulation and did not take off her shoes. Students reminded her that they cleaned the floor carefully since they paid more attention to hygiene after the dormitory beautification competition. From this activity, the school believed that they developed a

good habit. Overall, there was a clean atmosphere that helped them to improve good habits, including washing hands before they ate.

School 4 made a special effort to set up a green environment, to make the school “more beautiful, clean and green,” as one of the teachers said. The school report stated,

We have launched green environmental protection education, established the green environmental protection ideas. The main task of launching green environment protection education is to set up green environment, launch the environmental protection educational activities, establish students’ green environmental consciousness, train students’ good life attitude. We permeate the environmental education in the teaching activities, participate in community’s environmental protection, educate students in practicing the activities, and train students to have good green environmental protection accomplishment. In 2004, our school is chosen as the green school of Zhejiang Province. It is the establishment of the green school that has purified the environment of the school, it has offered to students graceful, hygiene, healthy environment, and it has improved teachers and students’ health, hygiene consciousness.

The school also improved the dining room and made it more sanitary. As the mid-term report stated,

Make sure that all the tableware’s are disinfected strictly. We grant the stainless steel tableware’s in unison, we have purchased the high-temperature sterilizer. Staff members was disinfecting to the tableware in unison every day, prevent strictly from diseases go in by the mouth.

The school also cleaned the “dirty corners.” For example, after students finished eating their breakfast or lunch they did not just leave their dishes or leftover food on the table but put it in a designated place. Also, they folded up the blankets neatly in the dormitories. One parent wrote, “As parents, we realized that school has made a great improvement in environment. Now the campus is cleaner and has more green areas in the school.” Students also mentioned that the environment got much more beautiful. One student wrote, “Students can help school in keeping good sanitation habits, distributing publicity materials, planting trees to support school to be Health-Promoting School.” A

teacher mentioned that they were speeding up the construction of a no-smoking school and a student wrote that there was no smoking on campus.

School 5 established a cleaner and more beautiful environment. The school did some “sanitary work” such as keeping classrooms clean, checking garbage bins every day, conducting investigations about water protection, and offering free clean water to students. According to the principal’s report, the sanitary condition was improved and “all the classes and the teacher’s offices have been equipped with the water purifying system. Teachers and students are supplied with pure water for free, which guarantees the high quality of hygiene.” Furthermore, the school implemented a “beautification and afforestation of the campus in an all-around way” to purify the surrounding environment of the campus.

What deserves particular notice is that, in order to give the beautiful material environment for students, our school has defined the basic rules for classroom decorations which are presented in ‘the classteacher’s examine detailed rules and regulations’, guaranteeing that students may learn to grow up in a graceful and comfortable environment.

The school also banned smoking and was designated a smoke-free school.

School 6 “made the green surroundings bright,” and garbage got cleaned every day at a fixed time. They also had a dormitory beautification competition, “Which is the most beautiful dorm?” A mother was quite satisfied when she visited her son’s resident’s hall and it was very clean. The school tried to encourage students to do more housework such as cleaning the rooms, cleaning the tables, washing clothes, and spending less time on computer games. They also encouraged students to collect used batteries in the communities, to collect plastic water bottles in the classrooms, and to have good sanitary habits. To protect the environment, they did not allow the use of disposable containers;

they used their own containers to get food. For example, at the beginning of the semester, the school encouraged students to use their own chopsticks and bowls instead of one-time plates and chopsticks, which would help protect the environment and reduce the possibility of using dirty chopsticks and plates. A student remarked, "School is cleaner and more beautiful than before."

School 7 also improved the sanitary environment. School administrators told us that in the past there was a lack of sense of environmental protection or cleaning. After the project, they paid more and more attention to this, in addition to rebuilding dining room dormitories, and other facilities. They anticipated the students would become more and more satisfied with this school. In addition, administrators mentioned that the students of the school took responsibility for "maintaining and cleaning works of the community." Thus, even the community changed "with the hard working students."

In School 8, several participants said that the campus became "more clean and more beautiful." Students mentioned that there were regular clean up activities. For example, activities encouraged students to pick up "untidy things" on the ground to create a tidier, cleaner campus environment. A mother thought that the greatest achievement of the HPS project was the change in the environment. In the past, it used to be not very tidy and clean. After the project, it changed, "totally."

In School 9, students mentioned that the campus was more beautiful and cleaner "which helps us increase the efficiency, relieve our pressure and have better mood." One of the male students mentioned that the hygiene situation was greatly improved since they adopted this project, and when he was studying or exercising in such very good,

natural surroundings he felt very good. Thus, he thought this was good for the development of students, and would increase their studying efficiency.

Assuring a harmonious psycho-social environment

Schools improved their psycho-social environments.

In School 1, a mother, who referred to notes, and talked excitedly, said the school had done very well in psychological education and in maintaining good relationships between teachers and students. Students and teachers were “like friends.” The school took students out for camping, BBQ, and outdoor activities. During that time, students felt close to teachers and had the desire to “let go what was on their mind.” The mother felt this could relax students. Another mother mentioned that in her child’s class, a few students had divorced parents. Children felt isolated and teachers treated them like their own children, paid attention to their psychological well-being, and let them answer easy questions to build their self-confidence; now these students were “normal and healthy.”

In School 2, students mentioned that the authority of the school was special, which was different from other schools. The headmasters were very respectful, approachable, friendly, and easygoing with students. For example, when the vice headmaster saw students eat instant noodles, he told them that it was malnutrition, not by scolding but by giving instructions. Students said that this kind approach moved them. Students also said that they lived in harmony with students, teachers, and authority. This school also paid attention to students’ psychological growth. For example, the school had forbidden students from using their mobile phones in school. Students thought this was a good idea. A teacher reminded one student who used a mobile phone that it was not good

to have such close relationships with people outside the campus; this student did not study well and did not achieve. The female student who told us this believed that forbidding mobile phones in school would help students to have “balanced moods and not to compare each other’s phone models,” which was especially important for students from poor families who would not feel competent. Students also paid attention to psychological well-being and thought it was important. (Note: The entry point of this school was nutrition.) An instance happened during our interview: We heard that the school expelled one student because of cheating during the college entrance exam. This meant that this student could never take the exam again. The vice headmaster was concerned about the psychological health of this student and about the potential for committing suicide and took appropriate steps to inform family and counselors.

In School 3, the “Strategy and Steps for the Program” in the newsletter stated, “among students and teachers there should be an environment of mutual concern, honesty and warmth. This should include guidelines for helping less advanced students, respecting the customs of different ethnic groups and encouraging polite behavior.” Two mothers told us how the school put this strategy into practice. One of the daughters entered the school as a top student but then felt not so confident. The teacher discussed the problem with the girl’s parents in a timely manner and communicated with the girl to strengthen her self-confidence. During her first year on campus, the daughter gained self-confidence and was now the class monitor. The other mother’s daughter ranked in the middle when she entered the school, received encouragement and praise from her teacher in class, and the school contacted her parents regularly. Now the daughter was going to a prestigious school in Beijing, without an entrance exam. These examples showed that the

school did well in fostering psychological health—even before the project started.

Another example demonstrated how the school provided opportunities for students to bring out their potential. At the closing ceremony of Senior III, one of the daughters was the hostess. Apart from studying, she also had a talent for speaking in public.

In School 4, the mid-term report stated, “We created a healthy, hygienic, harmonious study and living environments. ... The whole campus has fully shown that educational, humanity, recreational function. It has become the students’ study and living paradise.” School administrators mentioned that they had more and more a “health atmosphere” within the school. Students helped schools in “environment improvement, psychological improvement, teaching and improvement of relationship between school and family.” One parent wrote, “School sanitation and cultural atmosphere have been greatly improved. School looks so familiar to us and it has become a good place to enjoy, relax and study.”

School 5 also created a harmonious learning environment. The principal’s report described,

The school advocates the concept of ‘people first.’ All the school jobs focusing on the development of all students in an all-around way. We believe humanity and care are the strength source and reliable assurance for education. We think harmony and proper order are the basic need. We stress that communication and trust are the way to solve all problems in education. So we pay close attention to the cultivation of the spiritual atmosphere, the development of the relationships between teachers and students, teachers and teachers, students and students, with democracy, equality and harmony. And we have practiced this concept in each job in detail. In the school we strongly forbid oppressing the weak and any discrimination between the students. We pay close attention to the students and groups who have special difficulty and need help in the community.

The teachers reported that there was very good cooperation among students, even slower students. There was also a good relationship between students and teachers.

Students told us that sometimes they felt more comfortable talking about things to their teachers than to their parents, so many students felt more comfortable at school.

In School 6, they created a harmonious atmosphere and had a good relationship between students, teachers, and leadership of the schools, as administrators told us.

School 7 established a more harmonious environment. Students made statements like “The most important positive change is that my study and living environment is changed. Study atmosphere is better than before and good living habits have been formed.” We heard that the relationship between teachers and students was very harmonious and that the school “realized the harmonious balance as a whole.” A student reported that the “school arranged a series of activities so that the atmosphere on the campus was more active and the relationship between students and teachers and among students is becoming more harmonious.” Another student wrote, “My school is witnessing a big change. The campus environment is better and better. The relationship among people is more and more harmonious. For example, in terms of the relationship between teachers and students, before [the HPS project] only teachers would come to us and talk with us. And students would never go to teachers and ask for help. But now, we would always go to teachers and discuss with them about our problems and try to find out the solutions. Now teachers are not only our teachers, but also our friends.” Parents also told us that no discrimination existed in the school between students and between students and teachers, and a teacher told us that he or she now paid more attention to students’ thoughts.

School 8, according to the vice headmaster, created a good atmosphere for students “to grow up happily.” A teacher mentioned, “Teachers and students can study

and live healthily and happily.” A parent found it helpful that the teacher in charge of the class would talk with her child.

In School 9, the person in charge of the HPS program told us that they tried to create harmonious working surroundings so teachers and students had a “good mood” to work and study better. As mentioned above, the environment of the dormitories included the “software” of sound values and harmonious interpersonal relationships. Students who lived on campus came from different social classes. The dormitory was equipped very well, so students from rich families also lived there. Students from rich families were treated equally with others so they would feel equal and not be spoiled. They tried to cultivate students with high values of “respect, caring, anti-egoism,” and teachers and students became friends. One of the administrators thought that the harmonious relationship among students was one of the most important positive outcomes of this project. Teachers described their school’s activities as a Health-Promoting School as: “the change of the atmosphere—more respect from teacher for student and more concern by teachers about their own health condition:” “Friendly, encouraging and supportive atmosphere is forming. It happens between teachers and students, supervisors and teachers, students and students, and teachers and teachers.” A teacher also commented, “The relationship among people is harmonious and the studying atmosphere is very good among students,” and a parent remarked, “Students can help each other and teachers are more devoted to their teaching career.”

School 9 also used brainstorming to gain “the wisdom of the teams” in preparing teaching plans. School administrators mentioned that one young teacher who was very good did not participate much in the required brainstorming to prepare lectures together.

Other members of the team became uneasy. They thought that teacher was a little selfish. They tried to do a teacher consulting and ordered special books for teachers to realize their actions or reaction to this situation and for self-realization. The school tried to give opportunities to the teachers to play together so they could develop good teamwork—this included physical exercise, eating dinner together, dance, art and more—and the teachers learned “the benefit of the team” and built harmonious relationships with each other. Thus, the school administrator felt that the HPS project was very good in helping the school to develop itself. Eventually, the teacher became part of the team, the other team members liked her, and when she had a baby her team members took the time to communicate with her and she sent them a thank you note.

Maintaining a caring atmosphere

Some schools had an especially caring atmosphere.

In School 3, a mother told us that her daughter had an accident the previous year and twisted her leg. The doctor said she had to stay home for one month. Since this was a vital period in the semester for a Senior III student, she was very worried. After the accident, the daughter was also very worried and all her teachers, not only the head teacher, gave her calls to encourage her. After one week at home, during which the head teacher sent all class exercises to her, the daughter hoped to go back to school. The teacher arranged students to help the daughter, who lived on the fourth floor in the dormitory. All classmates took turns helping her up and down the steps during the whole month so the daughter did not miss class. She was very grateful to the school for this.

School 5 taught children to love their parents and to help each other. The school also fostered equal treatment among students and between teachers and students. Students told us that teachers treated all students equally regardless of their academic record, and whether they were advanced or not advanced. Parents informed us that teachers and students were equal, and had not only the relationship of students and teachers, but also the relationship of friends. Students said that there was “a very, very good relationship between teachers and students,” so much that students were more comfortable talking to their teachers than to their parents. One of the teachers wrote that establishing equal relationships between students and teachers was one of the most helpful aspects of this project. After all the talks we had at this school, my WHO colleague made the statement, “and if I were to describe any one thing that I think this school is really doing best, it would be that it is fostering caring among the teachers, and the students, and the parents. ... And I really like the notion of the four-student groups, where the students begin caring so much for each other that they make sure that their whole team moves ahead together. Teaching children and others to care for each other, and themselves, is something that we always talk about in health promotion, but here, I’m actually seeing it operationalized. And I don’t see that very often.”

In School 7, a mother expressed gratitude to the school because when the school cared more about their children, the children’s parents, when they were working outside, could feel more relaxed because they had confidence that the school would take good care of their children. She said that she could feel that the teachers of the school cared for her daughter very much. In response to probing, we found out that this care did not just

happen in the last 2 years since the school became a Health-Promoting School, but it had already happened before.

In School 8, to meet parents' concerns, the school tried to give students equal opportunities. One parent explained their situation: There were many students in one class. Some were very outstanding and could arouse more attention from teachers. Other students were not so outstanding, and they could get fewer opportunities to participate in joint activities. As parents, they only had one or two children, so the children were very important to them. When students in school had a bad experience—other students getting more attention and opportunities from teachers—they would tell their parents, and then the parents would have some negotiation and communication with teachers to make the teachers realize they should treat all their students equally and offer them equal opportunities to participate in activities. This gave a deep impression to the teachers that a child in class was just one of many, while in the family, it was the whole life of the parents. This reminded the teachers to show respect and pay attention to each child and to encourage him or her to participate in all kinds of activities. Furthermore, a father said that his child got a serious disease, and the school offered help. He felt grateful, since they offered 30,000 RMB (~ \$3,740) in financial support.

School 9 also shared many instances of caring for one another, some of which appear in the section *psychological consulting* above.

The next chapter describes the challenges of becoming a Health-Promoting School in Zhejiang Province.

Chapter 6. Challenges of Becoming a Health-Promoting School

This third section of results answers the question: What are the major challenges that these schools needed to overcome? Participants reported challenges related to understanding and integrating the HPS concept and lacking professional development and support.

Understanding and integrating the Health-Promoting Schools concept

Reported challenges included balancing academic studies and health interventions, coping with an increased workload for administrators and teachers, understanding the concept of a Health-Promoting School, needing motivation and courage to participate, requiring time to change habits, resisting project rules, addressing health and environmental problems, improving relationships between schools and parents, strengthening communication between teachers and students, extending health promotion to the community and families, and sustaining and expanding health promotion efforts. Some participants reported no challenges.

Balancing academic studies and health interventions

There was a concern that focusing on health would take away valuable time from academic studies and achievements.

In School 3, the PE teacher said that it was possible that many parents would not agree with what the school was going to do. Parents hoped children would study harder to achieve well in their studies, and they did not want children to pay attention to other things. Parents thought this way because they had mental pressure from living in a competitive society. To address their concerns, parents hoped the school would carry out the project “*not* as a daily political movement with a deadline but that it would be carried out continuously, without a stop.” One of the male students said very passionately, in English, that it was important to keep in mind the difference between China and the United States. In the U.S., if students wanted to enter college, they worked hard. In China, it was “*far more of a challenge*.” The student noted that China does not have as many good colleges as the U.S. has. He said it costs students a lot, such as play time and rest, to go to a good college, “We have the duty to contribute to our country to be a powerful country. Also my parents expect me to be a successful man. So, in China, it is not very realistic to enter a better college. The chance is greatly different. If I don’t enter a better college, I don’t think my parents will love me. They will say, ‘hey, what are you doing now?’” The translator summarized: “The competition is fierce. They focus their time and energy on study rather than on other things. It is too competitive here. If students do not enter a better university, parents and society would regard it as not having a good opportunity for their career.” A student said we should take into consideration China’s tradition that a person who wanted to stand out and be successful had to study hard and achieve greatly in his study. Another student mentioned that it would be a great challenge to the teachers in this competitive state. Some teachers found it difficult to

adjust to the new concept, and they continued to focus on students' achievements in studying.

In School 4, all four groups that we spoke to—school administrators, teachers, students, and parents—mentioned that parents were concerned that the project would have a negative impact on the students' academic education, and it was difficult to get the support of parents. During our interview, some parents expressed concerns about health promotion because they thought too many activities would distract some of the students "away from education." One of the mothers said it would be better if "health promotion could make some contribution to the academic education, if health promotion and academic education could be combined."

All of the students in the interview responded in writing that they should try to win the support and understanding of their parents for this project. For example, "Some parents don't agree with our activities in popularizing the knowledge to the community because they are afraid that this activity will affect our study. ... We should try to win their support and change their ideas," or "We can't win the support from our parents and communities because they thought that it is a kind of wasting time. We should work on winning more understanding from people around us." One student wrote, "Some parents didn't allow us to publicize this campaign to communities because they are afraid that this activity will affect our study. All of us should try to win their understanding and support to us." One of the students said he tried to speak to his father and "led him to believe that if we do not have good health, then it's no way have the education and the study." Some students said their parents just ignored them when they talked about the health promotion project. Teachers told us that one of the problems they met with was

that the project could not get recognized by the communities and the parents who thought the school should take more time for education. “The project would take some time away from the education. However, the school leader paid more attention for the health promotion. The school believes health is a guarantee for the quality of education.”

In School 5, students mentioned that coordination between health promotion and academic education was a challenge because both required a lot of time. Some students felt very stressed around the time of the mid-term and final examinations.

In School 9, students mentioned that the new focus on health was a bit difficult to apply to daily life because it was new and they were used to studying.

Coping with an increased workload

Several times, we heard that this project added an extra workload for administrators and teachers.

In School 2, a teacher mentioned that the HPS project might add extra work and it might be a bit difficult to carry out all items, but it would be worthwhile doing it. A mother elaborated that this project would add to the workload of teachers, families, parents, and students, but it was beneficial. She said the headmaster and other teachers were very busy with the project. According to the mother, the headmaster devoted himself totally and had no time for personal things. As reported earlier, the English teacher of this school spent the 6-day May holiday looking on the Internet for relevant information. Parents were moved by what the school has done. Teachers did extra work in the evening.

In School 9, the woman who was mainly responsible for this project told us that she had to learn for herself first before she could do this job. She worked very hard, and she sometimes felt a little tired. But she still thought that it was worthwhile, and she said that it was very interesting to learn more about the concept of health. For our visit, the school organized many conferences about “how to do this promoting work.”

Understanding the concept of a Health-Promoting School

In some schools, participants found that it was challenging to understand the HPS concept.

In School 3, the psychologist said it was difficult for all staff and students to accept the concept. Once they understood the concept and accepted it, they could implement it smoothly. It was very hard for people to accept new ideas. Students said they totally agreed that the school should participate in this project, but it was hard to encourage their parents and society to accept this concept.

In School 4, one of the parents told us that, “society didn’t totally understand the ‘health’.”

In School 6, teachers asked for “education of updated health concept” as Health-Promoting Schools, or health promotion, was quite a new concept for them. Parents told us that this was the first time they learned about Health-Promoting Schools, and they were quite unfamiliar with that concept. A mother said that they had a “confused concept” about nutrition and safe sex and physical activities and psychological issues. She asked for more explanation about these issues.

In School 7, an administrator told us that while it was not a big challenge for him to understand the broad concept of health, because he had a lot of experience in education, he met a lot of challenges during the “practical promoting” because it was not very easy for students and common teachers to change their minds. “It’s very difficult to make more people understand the definition of health made by the WHO. And it is hardworking, painstaking working.”

In School 8, the principal reported that one of the initial problems was “understanding of the concept,” and particularly parents’ understanding of the health concept. The school addressed this problem through home visits and joint efforts of teachers and local officers.

In School 9, as reported above, students did not pay much attention when the school first focused on health. Administrators thought that “some old concepts” were challenging about making this change of focusing more on psychological health, and a parent also mentioned the “Chinese traditional concept” as a challenge.

Needing motivation and courage to participate

Some participants talked about a lack of motivation and courage.

In School 3, a female teacher thought publicity was not enough. Some kind of activity was needed to motivate students “to let students see the benefits and to let them see that their school’s project outwins the other schools.” Another student thought while some students might feel shy to go to a psychological consultant, they might just talk to their friends.

In School 6, a student mentioned as challenge, “control ourselves and keep on.”

In School 7, the vice principal reported that the biggest problem during implementation was that the “quality of students” was less developed and their self-control was difficult, thus it was not easy to keep them in order or cultivate good habits. Another administrator elaborated, “Our students are from poor mountainous regions and they failed in the national secondary examinations. The largest difficulty is how to teach students to control their behaviors and avoid making mistakes again and again.” Four students also mentioned students’ self-control ability as a problem, and one mother mentioned about her son that, “he would always want to play.”

In School 9, a teacher thought it was a challenge to win trust. A student expressed that “how to implement these policies is a big challenge.” This school had one particular challenge; students who needed help were embarrassed to ask for help. The person in charge of the HPS project explained that 43 students came for help in the first month after they opened the consulting room. But in the year we visited the school, only about 10 students came, and since the beginning of the semester, no student asked for help. A student acknowledged that some students needed help, but were afraid to go and accept such help because there was a possibility that other students would laugh at them. If he was that student, that would make him feel very embarrassed. (The door to the consulting room was in an open hallway so that people could see who entered. We suggested using the room for multiple purposes, not just to address students’ problems, so that the school could reduce the stigma of the room, and to invite groups of children to go there for psychological lessons such as stress control.)

Requiring time to change habits

Many participants told us that health promotion and changing habits takes time.

In School 2, administrators mentioned that it was likely to take a long time to get rid of bad eating habits. “To say is one thing, to do is another.” A mother thought it “maybe not difficult” for parents, but she could see challenges with children who were “particular” with food. For example, her son wanted to eat salty food but did not want to eat sweet food.

In School 3, a male student said it “takes a long time to effect the project, so we should pay prime attention to the evaluation part and associate closely to the nation’s state and nation’s concept.”

In School 4, some of the students found it very hard to change habits, even though the school and students tried to persuade them to form sanitary habits. Some students kept their bad habits. One teacher mentioned that quitting smoking, for example, was a long-term effort and a specific system should be established “to guarantee the continuous effort.”

In School 5, students also acknowledged that health promotion was a long-term project and that it took time to change their habits because they formed the habits long ago. They pointed to the old Chinese saying, “Habit is very, very hard changed. So you must take some time to form good habits.” Some students reportedly refused to change their habits. Other students suggested they should be told about the harmful effects of these bad habits. Since we talked to this school during the mid-term evaluation, teachers also felt it needed more time to develop and “to have an accumulated process.”

In School 6, school administrators acknowledged that health promotion was “large and complicated work and is a long-term goal.” One of the administrators wrote, “It is a big project to take part in the health promotion activity. It can’t be realized in one or two days. We must make out a feasible plan and then take measures to realize it step by step.” Teachers mentioned that, because this was a vocational school, the students’ quality was a bit lower than in the key schools in the city. Therefore, the leadership of the school and the staff would need to take more time than other schools to do the HPS project. A father mentioned that although his child had the idea and the concepts of health, some of the bad habits might have formed a very long time ago, so it would take some time for him to completely change some of the bad habits. Also, it would require the parents to point out the habit “in time.”

In School 7, an administrator said that it should be a long-term project to promote school development, and two administrators and one teacher expressed that students would make mistakes and then “change again and again,” so it would take time. Administrators expressed that “it’s hard for them to change some old, daily habits, living habits,” and a teacher remarked that it was challenging “to encourage students to keep the good habits after this project.”

In School 8, a student asked us what we would do to persuade a parent who is a heavy smoker to stop. Teachers mentioned that “how to form the habits” was a challenge.

In School 9, administrators expressed that it was challenging “how to encourage teachers to arrange their time reasonably.” And a student wrote, “Maybe teachers can’t be changed in short period. Maybe teachers have their own pressure as well. But they are working hard.” Students also acknowledged that even if they learn new ideas about the

concept, they got used to the old ones, to the past, so it was very hard for them to apply these new ideas in their daily lives.

Resisting project rules

A few sources told us that some students did not obey the rules of the project.

In School 2, students mentioned that perhaps some students did not want to obey the regulations and became rebellious. Students who were rebellious did not want to participate in any activity. Students suggested that the school hold practical activities to get them interested in the project, such as a creative activity like the dorm beautification.

In School 4, a student informed us that some students had not changed their bad habits and continued to litter.

In School 6, students told us that some of the students were not positively involved in the project, but only passively. This meant, for example in regard to nutrition: positively involved students would do the things that were required from the class meetings such as actively participate in discussion and give a presentation, but the passively involved students would do nothing, or just the opposite and avoid discussion of sensitive issues such as sexual issues.

In School 9, students made the following statements about challenges: "Some students couldn't take an active part in the events and had some worries," "Some students threw away garbage everywhere and didn't want to obey schools' rules," and "Students were not devoted into this project."

Addressing health and environmental problems

A few participants mentioned health problems in physical, mental, and environmental aspects.

In School 4, parents told us that children were “very fragile” and could not express frustration. In addition, one of the administrators told us that the sanitation condition in the countryside needed to be improved.

In School 5, one student pointed out that shortsightedness problems were very serious and that students should pay attention to protect their eyes.

In School 6, a teacher raised the question what to do about the many McDonald’s and Kentucky Fried Chicken shops that sold “garbage food,” but the children liked them.

In School 8, the principal reported that they were rethinking how to care for those who were disadvantaged with “weak power” (not confident) since for those with a lack of confidence there was some existing discrimination. Also, the social safety system was not perfect and the school had some people affected by this. This would be addressed by making a system to organize teachers focusing on psychological issues and by building “a school full of caring / love” to make more people of society caring. There were also “hardware problems” with drinking water. In the year we visited the school, the local government made changes to the drainage systems, but there was no drainage system in the whole village. A mother suggested that in rural areas, the common situation was that children’s parents often went off for work, so their children only lived with their grandparents. So, there were some psychological problems to take into consideration as well.

Improving relationships between schools and parents

A few voices spoke of a challenge in the relationship between parents and schools.

In School 4, a parent wrote, “Family and school should have more communication, which is important in the whole campaign and worth popularizing.” On the other hand, students said that parents ignored them when they talked about the health promotion project.

In School 5, students mentioned that there were very good relationships between teachers and students, but not very good relations between the teachers and parents. Consequently, students felt happier on the campus than in their families.

In School 8, a parent mentioned communication between families and school as a challenge, and one parent wrote, “In the school, teachers told me that my kid became mature and considerate. But sometimes, he was not so nice to us.”

In School 9, a teacher mentioned that “professional knowledge and cooperation from parents” were a challenge.

Strengthening communication between teachers and students

In one school, communication between teachers and students was mentioned as a challenge.

In School 5, despite the many positive comments about the good relationship between teachers and students, some people felt that there was room for improvement in this area. One student said teachers should take more time to communicate with students. One of the movies he saw said that good teachers should be accepted by students and

communication with the students should be very close, like crossed fingers. One student, possibly the same, wrote, “I thought that the biggest problem is that the communication between students and teachers is not enough. Teachers and students can’t talk freely. I think that we can try together because I believe that everything can be done better if we pay enough attention and effort.”

Extending health promotion to the community and families

There was a challenge of extending health promotion to the community and family.

In School 1, students said when they “got knowledge,” they wanted to pass it on, but people did not want to “accept advice.” They had to talk a lot without results. Furthermore, students mentioned that some people came and enjoyed the school activities, but they did not really realize the importance.

In School 4, school administrators felt they lacked “very, very strong support from society and community.” One administrator identified as one of the key problems “how to get support from the society, especially family members who smoke,” and one said, in regard to the implementation, “Basically follow the plan, but it is difficult when this project involves the parents and people in the community.” Several teachers pointed out a need for more support from the community and families. A parent wrote, “There are not too many community members who took part in this campaign. More communication needs to be done between the school and community.” Another parent wrote, “Some people thought that it is not necessary to do those things because they didn’t realize those problems yet. We should educate them.”

In School 5, school administrators acknowledged some problems with “implanting and implementing the health promotion idea in the community.” This was particularly true for communities with low educational levels. The school was trying to encourage students to reach out to the community. A student wrote, “We didn’t have enough events with the participation from community and parents. Students just held their events in the school. I would suggest that school should arrange some events such as ‘Experiencing Army Camp Life,’ ‘Serving the Community’ and ‘Voluntary Help to the Poorer’ so that we can have more opportunities to practice our ability in adapting ourselves to the society.”

In School 6, promoting the HPS project in the communities and families was a challenge because of the location of the school and the location of the hometowns of the students. As school administrators and teachers mentioned, there were two problems: One was that the school was located in a suburb relatively isolated from the communities, so it was not very easy to connect with the communities, from school. Another was that students of this school came from all parts of the province, so it was very, very hard for them to have a parents’ meeting and the only way of communication was a letter to parents or through students. One of the administrators wrote, “The key challenge is to attract more people to participate. The key difficulty is how to encourage people in the community to participate. Measure will be trying to strengthen the relationship with the community.” Students explained that when they went to the community for publicity, people did not pay attention to these kinds of activities. One student wrote, “When we went to community to popularize the knowledge, it seemed that they listened to us

carefully. However, in fact, they didn't pay attention at all. We will try our best to do it well and cooperate with our school."

In School 7, school administrators told us that the biggest problem they faced in negotiating with parents was that 60 percent of the parents did not live locally; they worked outside in other cities and provinces, so it was a long distance for them to keep in contact. And in some places, there was even no telephone at all, so it was very hard for them. Asked how they met this challenge, we learned that teachers would visit the homes, would write letters, or would call relatives if there was no phone in the home town. Teachers also mentioned that it was difficult to negotiate with the parents, or to promote the project in a broader way. "To influence more people is very hard." One teacher wrote, "How to achieve the change from consciousness to real action and how to encourage all the people to achieve this change (including parents) is a big problem."

In School 8, one administrator mentioned that "parents don't understand us" and two teachers mentioned a lack of attention from parents. Additional challenges were the coordination among all the people involved, "joint efforts by people from all the walks," and "the consistency of the education by parents and teachers."

In School 9, a teacher mentioned that it was a challenge "how to balance the relationship among school, community and family and how to encourage them to understand each other." Another teacher wrote, "I wish that we could strengthen our cooperation, contact and exchange." And a student expressed, "I wish that society and parents could judge us from all round angles, give us less pressure and create a freer environment for us."

Sustaining and expanding health promotion efforts

Schools identified a need for further expansion and continued efforts.

In School 1, the principal mentioned that it was important to enhance the whole nation's nutrition.

In School 3, the PE teacher mentioned that only one school participating was not enough. "All the society" should take part to improve all citizens' quality of life. A mother said that this project was important not only to her family, but also "to the nation and the world."

In School 4, administrators told us that the school could expand its health promotion activities. Other schools in the neighborhood showed strong interest in participating in this project. A mother also shared her opinion "that we needed to expand this kind of health promotion project so more people and more students and more population can get to know about that. So only this school is not sufficient." Another parent mentioned that, "it is too weak to rely on only one student or one school. I thought that we should encourage more students and schools to take part in this project." A teacher also expressed a hope for more Health-Promoting Schools to "promote the development with the other schools in the same area together." A student suggested a need for "more statistics to show to other schools or communities to encourage them to join this campaign."

In School 5, one of the students mentioned that although they had very good beginnings, the key issue was to keep it going. A parent enforced that "the key challenge should be how to conduct this campaign in a continuous way." Another parent thought that "the key was: keep on doing and become more creative."

In School 6, teachers mentioned that the health promotion project benefited the whole society. Students and teachers should be encouraged to participate in various kinds of ways to extend the project and broaden the effect of the project to the whole society. One of the female teachers said that the health promotion project should be “extended to all society, because health was important to all populations.” A mother suggested if health promotion was successful in this school, she hoped that the Department of Education could learn from this experience, and then “let other schools learn from this school.” Parents wrote, “I thought that Health-Promoting Schools should be promoted worldwide so that everybody will understand health and try to keep healthy” and “This is a society cause which needs help from government and the whole society.”

In School 7, one of the administrators suggested that this project should be extended “in all the schools to promote the health and civilization of people.” A student who found the project very effective thought it was necessary that it benefit more children in China. She was wondering whether this project could be expanded and promoted in more areas. “Why not promote this project into other areas like the community or some institutes or some companies because it will benefit more people?” Two students (which could have included the student who made the remarks above), asked, “Can we launch this project in a wider area? For example, can we launch this project to the whole society as well? Is this project popularized in the world?” and, “I was wondering whether we can promote this project to all the schools so that all the people can benefit from the Health Promotion Schools.”

In School 8, the principal talked about how to make the project sustainable, and had plans for the future “More efforts to help people change concept of health” and “Try

to find more channels to spread health education.” Administrators also suggested to give more schools a chance to take part in this project so that more children could benefit.

In School 9, one of the parents, who saw our visit as an honor, mentioned that since China had a large population, if the HPS project could be done successfully here, then it should be expanded to other places, since it would be very meaningful and significant for the whole world. Parents wished that WHO could provide more support for the expansion of this project. “If this project was implemented only in one school, the influence was limited and narrow. We should try to implement it in a broader way and in all of China.” A school administrator also wrote, “I wish that we could promote this project into a wider area/extent.” A student expressed, “I thought this project should be publicized in a broader way and should become a common understanding across the society.”

Lack of professional development and support

Participants identified a range of challenges related to professional development including needing to expand knowledge, skills, and experience about health promotion, requiring technical support, addressing shortages of qualified staff, needing governmental support, and lacking funds and facilities.

Needing to expand knowledge, skills, and experience about health promotion

Participants mentioned a lack of knowledge, skills, methods, theoretical guidance, and experience of health promotion many times, though often not further specified. However, respondents did provide some specific examples.

In School 1, teachers first thought their nutrition knowledge was enough, but when the project gained in intensity, they felt a need for more professional instruction and hoped for more expert talks, though they also acknowledged that “knowledge is not enough” and that some students knew better than teachers. They had invited students with rich knowledge to be the instructors.

In School 2, there was a need for more information and guidance on nutrition and skills (e.g., how to carry out nutrition education). The person in charge of the HPS project felt short on materials, especially related to skills for nutrition.

In School 3, a student said [in English] that they had enough information for this kind of activity, but they were just at the beginning and they did not have a rich experience yet. The student said that, at this stage, they might miss challenges and difficulties. Noting that if they could communicate more and gain more experience they could do better, the student observed, “Communication is very important.”

In School 4, one of the teachers mentioned that one of their challenges was their lack of experience because they were just beginning their project. They had “no idea” how they could reach their goals and objectives. They would have liked to have more opportunities to visit other Health-Promoting Schools to obtain more experience. One teacher also mentioned that they had no criteria for Health-Promoting Schools.

In School 5, teachers felt a lack of skills and methods to deal with students’ psychological problems. Teachers also reported a “lack of health promotion theory” and of the “health” concept. One teacher expressed, “During the implementation, we don’t have enough ways and skills to realize our target. We wish that we can pay visit to other places and invite experts to our school so that we can make our work better.” Another

teacher pointed to a lack of knowledge about “health promotion events,” and added, “Sometimes, we have no idea where to start.” Another challenge was to give students knowledge and skills. In some instances, teachers reported, students lacked education from their parents, so they needed teachers to continue to help them “and act as their mom to educate them.” A student suggested for schools to “hold some knowledge contests about health to promote the understanding about health among students.”

In School 6, an administrator mentioned since this was the very beginning of the project and although they had some experience, he thought it was immature and not worth being shared with other schools. He believed that, when the school’s health promotion efforts became “very, very mature and fully developed,” they would have more experience and would like to share with other people. A teacher proposed more information exchange among the Health-Promoting Schools, “because we have, in every city, different schools with different entry points, and different interventions of different experiences and resources. ... ‘We [need], both from the national level, provincial level, and international about that information so that they can know about the health concept in Western countries and the United States.’” Parents thought that as WHO officials we must have a lot of experience and asked if we could “please let us learn something from you so we can work together with the schools and community to do the best for health promotion.” As mentioned above, a mother wanted to know more in detail about nutrition, safe sex, physical activities, and psychological issues.

In School 7, an administrator mentioned that they made efforts previously on changing the concept of health to a more comprehensive one. “However, owing to the lack of correct understanding and enough theoretical directions, we didn’t make it well.”

A teacher expressed that it was a challenge “how to use the right methods and skills to find out students’ thoughts.”

In School 8, the principal reported as a “software” limitation, “quality of parents, students, teachers.”

In School 9, a teacher expressed that she wanted more opportunities to attend training courses and some conferences “held by higher officials.” A teacher also expressed that “professional knowledge” was one of the challenging factors in changing the concept. Two teachers also mentioned a lack of experience.

Requiring technical support

Many participants called for more technical support, especially since they were still in the early phases of the project and still learning.

School 1 thought they did not do their job well and asked for guidance.

In School 2, teachers hoped that we would provide more instructions and put more information on the project Web site. They also asked if WHO had a Web site or information available in Chinese. The mother hoped that we would tell WHO to help the school more in every aspect. She felt that the new project and new topic might be strange to the school, so she hoped that WHO, the HEI, and the research team would provide more instructions.

In School 3, the principal hoped WHO would provide good examples of international HPS achievements so they would have specific goals to strive for themselves. The principal hoped that WHO would pay prime attention to their school, and expressed a desire for the school to set an example for other developing countries to

follow. The principal also mentioned that they were still thinking about how to solve one problem: “to update teaching characteristics by furthering health education, psychological education, and PE to improve students’ quality of life, so as to let faculty, students, community to share civilization and good health.” They hoped WHO would give further instructions and help. The mothers we interviewed stated that they did not know whether there was a gap between China and international successful cases, and they wondered whether there was a gap between School 3 and other advanced schools. They hoped WHO would supply more advanced materials and examples so the school could work well with standards set by WHO. One mother was also a teacher for a college. She hoped to receive guidance from us about the HPS project. She changed her class schedule in order to attend the interview, and she mentioned that she hoped to have more opportunities to learn from us and to have this type of communication.

In School 4, school administrators expressed interest in learning from us, and “hope some of the leaders, some of the experts to come to visit here quite often.” They also wanted to have the opportunity to visit other places with experience with health promotion. They tried to get more experts from CDC to visit, and they asked for more opportunities to visit schools in other cities and try to learn from their “advanced experience.”

In School 5, administrators specified that some of the needed technical support would be how to diagnose psychological problems. They expected the WHO team to give more technical support and guidance during our visit. Especially since the school was located on an island and thus a bit removed, teachers felt they were a bit away from “advanced information” and asked for experts to provide technical assistance, direction in

skills, and knowledge about health promotion. A teacher wrote, “now the key difficulties we met are included: lack of skills and sometimes we don’t know how to do it better. The key measure to solve this problem is to strengthen the training and study in this regard.”

In School 6, school administrators wanted to know if it was possible to provide necessary documents for health promotion so they could disseminate about health promotion more efficiently. One of the administrators wrote, “Now it is the first phase and we don’t have enough experience and we do wish that officials from WHO could give me more directions” and “Officials from departments concerned can give us directions often.” Teachers acknowledged that Health-Promoting Schools, or health promotion, was quite a new concept for them, so they needed more guidance from experts about health promotion. A teacher suggested, “Get the instructions from experts from home and abroad to improve our work,” and another teacher identified an urgent need to get directions from experts.

In School 7, a teacher was wondering whether we could introduce some “advanced knowledge and education ideas” into the school. And a teacher also expressed a “wish that experts could come often to direct us.”

In School 8, administrators hoped that WHO could provide training of teachers and more technical support, besides other things. And a parent stated, “I wish that experts can communicate as much as possible with school and parents so that we can educate our next generation well.”

In School 9, a female teacher asked for more professional support, because even if teachers took some courses or studied by themselves, they still lacked sufficient

knowledge. So they needed more help from experts and professionals. WHO should offer a bridge for teachers to learn from other areas.

Lacking qualified staff

Some schools lacked qualified staff for health promotion.

In School 1, the school nurse was the only one who had psychological training; other teachers did not have this professional knowledge. Since many students had psychological issues, they needed more teachers with this knowledge.

In School 5, one of the challenges was a lack of qualified staff, especially for psychological assistance since children were at a “very special stage” during adolescence, a parent told us. Parents also suggested that the school should have more psychological consulting experts and try to perfect teachers’ psychological quality. As one parent wrote, “good psychology is the guarantee of good study.”

In School 6, school administrators mentioned a “lack of teachers who have the related knowledge.” And a student found it helpful to “have more personnel related to give us workshops about health knowledge.”

In School 8, an administrator suggested to “Pay more attention to schools in the countryside in ... teacher supply and training support.” Parents also suggested offering more good training for teachers to improve the quality of the staff, and to introduce more advanced ideas and some theories into this place so they could make good achievements. Parents thought the teachers needed more training, especially in psychological education.

In School 9, one challenge expressed by parents was about “teachers’ quality.” As

mentioned above, teachers wanted to have more opportunities to attend training conferences.

Needing governmental support

Some schools expressed a lack of governmental support.

In School 2, school administrators mentioned that to carry out a project in China, he hoped WHO would encourage the Departments of Health and Education to carry out the project smoothly. Practical policies needed to be set up and support from the upper level was needed, such as a leader from the government.

In School 4, school administrators expressed that policies were a challenge. They had the feeling that the Department of Public Health paid high attention to this project, but not the Department of Education. School administrators wrote, “Unfortunately, our directly supervising departments lack enough attention to what we are doing, which include the provincial and local education bureau,” and “I wish that leaders at different level can pay more visits to our school to direct our work.”

In School 6, an administrator mentioned, “We will try to get the support from the county and city government for more health education experts.” A teacher mentioned that health promotion benefits the whole society and needs long-term support, and a parent wrote, “This is a society cause which needs help from government and the whole society.”

In School 8, a teacher stated, “We wish that our supervising departments and leaders could show more concern to the schools in those undeveloped areas.” And a parent hoped that officials at higher levels could offer more help and more support to those rural schools that were less developed.

In School 9, one of the challenges mentioned by teachers was a need for “support and directions from supervising departments.”

Lacking funds and facilities

Most schools identified a lack of funds, and, in some cases, a lack of facilities.

In School 1, they planned to have nutritious snacks between the two morning classes. However, it was hard to get a supply of this food. Furthermore, they needed funds for the extensive filing system (for HPS process evaluation), and blood tests cost a lot, too. They wanted to buy more facilities to expand school size and teacher training. They appealed to the city authority to give support in money and policy to expand the campus; and they hoped for money from WHO as well.

In School 2, there were monetary restrictions to really carrying out a balanced nutritious diet. The school had to ask students to hand in money, and minority families were poor. Currently, the contribution was 120 Yuan (~\$15) per semester for rice. It cost more to buy the dishes. There were no restrictions on how much rice and soup students took. Some students brought food from home and did not pay. The school supplied nutritious food, but some students did not buy it and ate preserved vegetables instead. The school already gave a subsidy to students who were poor or had difficulties. They needed to spend more money for a balanced diet. They also needed financial support to improve their conditions and facilities. For example, in one of the former pilot schools, the Education Bureau gave financial support of 50,000 Yuan (~\$6,240) per year. In this city, the Education Bureau has not given any support yet. School administrators

suspected they had no time yet to do so. The school administrators thought, maybe with our encouragement the Education Bureau could be moved to do steps quickly.

In School 4, administrators and teachers mentioned a lack of funds as one of the challenges. Teachers said, “Health-Promoting Schools is a developing project which needs the strong financial support from the society,” and “Lack of funds: need joint efforts from the town government and education bureau.”

In School 5, one teacher pointed to a lack of facilities for students such as physical activities facilities and reading rooms. Mountain climbing activities could make up for this lack of physical activities facilities. Another teacher pointed to a need for more funds “to prepare facilities compatible with the advanced concepts.”

In School 6, school administrators mentioned that for health promotion, they needed a large amount of funds and personnel to be invested into the project, and they asked if it was possible to receive some of the necessary funding and personnel if they reached the pre-set goals. Administrators mentioned a lack of teaching resources, financial problems in the process of publicity and implementation, and a need for more publicity materials and funds. One of the administrators wrote, “Most of the measures are fine. However, some measures are limited by the objective conditions” and a parent contributed, “Wish the school will do a better job to provide a beneficial living and study environment to children.”

In School 8, the principal mentioned some limitations on resources related to hardware or facilities as well as a lack of financial support. In fact, all four administrators who provided written answers mentioned funds as a challenge. In addition, a teacher stated, “I thought that the biggest challenge is lack of funds and the joint efforts by

people from all the walks.” And a parent wrote, “I wish that supervising departments can offer more help to countryside schools in financial, facilities and technical areas.”

Additional teachers and parents acknowledged this challenge of a lack of funds as well.

In School 9, one parent hoped that WHO could offer more sufficient financial support, besides other things. An administrator and a parent also mentioned a lack of investment and a need for funds as a challenge. Teachers expressed a need for more textbooks.

(Note: Even though this program was being implemented with support from WHO, that support did not include financial support for activities undertaken by the schools. WHO’s financial support was provided only to hold an initial training meeting of participating school leaders, to hold a summing up conference at the end of the project, and to augment the provincial leader’s evaluation efforts. All financial support for the school-based efforts came from the province, local communities, and schools.)

Encountering no challenges to implementation

Some participants mentioned that they faced no challenges in implementing the HPS project.

In School 1, some students and some parents saw no challenges.

In School 4, parents initially said they had no problems, and then said there was a difficulty, but they could solve it.

In School 5, at least one of the students acknowledged no challenges.

In School 6, one of the mothers saw “no problem at all.”

In School 7, one of the administrators expressed that for him, personally, the project did not present a very big challenge because he had a lot of experience in the education field.

The next chapter reports the participants' self-reported changes in attitudes, knowledge, and behaviors.

Chapter 7. Self-Reported Changes in Attitudes, Knowledge, and Behaviors

This fourth section of results answers the question: What self-reported changes took place in the lives of individuals during the implementation process? This section describes what participants told us about changing their attitudes, knowledge and conceptual understanding, and behaviors due to their participation in the HPS project.

Changing attitudes

Participants reported about changes in their attitudes such as paying more attention to health, attaining better “psychological quality” and confidence, forming friendships between teachers and students, and feeling more relaxed.

Paying more attention to health

Many participants mentioned that they were paying more attention to health.

In School 1, a teacher said prior to the project some of her students did not have breakfast (implying that now they did). After the project, they realized nutrition was important. The teacher realized that students were not aware of the importance of breakfast, but after the project’s publicity, they understood the importance. Furthermore, students persuaded parents, relatives, and friends to pay attention to health (e.g., not to smoke, to eat a nutritious diet). One girl told us that when she found her parents not paying attention to nutrition, she pointed it out “in time.” One boy said it was a pity that

his father had not stopped smoking. He and his mother gave his father advice every time he smoked, made him unhappy, and hid his cigarettes. His father asked him to light a cigarette for him, and the son refused to do so.

In School 2, a student said they already found some changes; the school and the community had begun to “attach importance” to nutrition education.

School 4’s mid-term report stated,

We have improved parents’ health consciousness. ... we often organize students to go to the residential blocks ... these activities have improved health consciousness and technical ability of residents of communities of residential district effectively. ... We have improved the accusing of cigarette consciousness of students, we have enriched students’ hygiene and health knowledge, we have promoted the overall development of the school, we have promoted the standard for running a school, we have expanded the influence of the school in the communities. The more important thing is that we have improved the community members’ hygiene consciousness. All these will encourage us to work better in the future.

School administrators mentioned that people paid more attention to controlling smoking, and personal sanitation habits and consciousness about health were increased and strengthened. Teachers reported that students had enhanced “environment protection consciousness and sanitary consciousness.” One of the students said that one of the opinions he had changed was that he would never smoke when he grows up. Students also changed their preference for certain foods, tried to balance their diets, paid attention to personal sanitation, and increased their consciousness in protecting the environment. Students told us that after the parents’ meeting, some of the parents realized the helpfulness of these meetings to get information for their child to grow up. After a parents’ meeting, a father became supportive of his daughter participating in the health promotion activities, and parents let their friends know about the importance of health.

In School 5, participants told us that they were paying more attention to health. A mother strove to be more actively attentive to the education and the health of her daughter. Students reported that they were paying more attention to personal health and psychological quality. A student wrote, “We paid attention to our behavior at regular time. If we found that some students conducted unhealthy behaviors, we would communicate with them and stop them.” They felt that students should have a “strong body, healthy psychology and good social adaptability” that would prepare them to help the school popularize the “knowledge of health measures.” Parents told us that before the project started, the school focused on academic education only. After the HPS project, the school focused on academic education and health promotion at the same time. Thus, they balanced study and health issues. After the project, many students preferred to stay at school rather than with their family. The school was still doing well academically and won awards.

In School 6, teachers mentioned that students had started to realize the importance of good health. A student wrote, I “pay attention to individual health and nutrition and introduce knowledge to my family and friends. Encourage them to pay more attention to the importance of health and help school in extending the project.” A parent also informed us that students had changed their ideas about nutrition and tried to get a more balanced diet. A father told us that, through his child, he learned some knowledge about health and nutrition. Before this project, he was so busy that he totally ignored health, but, during the project, and as his child gave him information, he gradually realized that health was very important for himself, too. Another parent responded, since the HPS project began “I started to realize the importance of health and improved my life habits.”

In School 7, administrators came to realize the importance of improving the health and surroundings of the school. Their basic principle of the school was to work hard for all the interests of the students. However, in the past, they did not realize the importance of health. After the implementation of this project, they came to know this part. This also resulted in a lot of changes in an individual administrator's daily life. Now he would pay a lot of attention to food protection, or environmental protection. The administrator who designed the standards to monitor food quality and environment in the dining room acknowledged that during that process, he himself also realized that food quality control could guarantee safe food and protect students and teachers to be safe. School administrators also mentioned that health consciousness was strengthened in teachers and students. In the past students knew nothing about this, but at present more and more people came to realize the importance of prevention of accidental injury. So, a change happened in their attitudes. At least three teachers and one student also mentioned that health consciousness was strengthened, and a student mentioned that "self protection consciousness" was strengthened. There was also a change in people's attitude about the environment. In the past, there was lack of sense of environmental protection or cleanliness. After the project, however, they paid more and more attention to this. One of the administrators wrote, "All of the facts proved that students have better understanding about health promotion knowledge, strengthened their consciousness about health, and improved their skills about keeping healthy," and "The most important change is that students increased their consciousness about the security and improved their ability against injury." And the only parent who made a comment on this remarked, "This project encouraged my kid to pay more attention to health, which is good to our parents

and child. Teachers also pay more attention to students' living and study condition as well as their food condition. Now I can see many changes on my child."

In School 8, school administrators thought that by implementing this project, the greatest achievement was that it made more leaders pay more attention to the education of students' health, hygiene situations, and surroundings to make many improvements. Another administrator thought that the greatest change was about the increased awareness of safety among students and teachers. Administrators also told us that in the past parents thought if students misbehaved in the classroom the teacher should punish them, but after the project they paid more attention to psychological health. Teachers told us that in the recent 2 years at least 90 percent of students got an insurance policy. That meant that the concept was changing because people paid more attention to their safety. We heard that people's concept was changing and that health became the most important. Also, administrators reported that teachers paid more attention to their own health, and teachers and students were strengthening their consciousness about health and security. A teacher responded, "I strengthened my consciousness about the life quality such as food, clothes and nice mood and try to have a healthy living style." Another teacher mentioned that the outlook of the school was brand new and that "self protection consciousness" of teachers and students was strengthened greatly. Many teachers and several parents referred to this increased consciousness of health. For example, parents stated, "My child strengthened the consciousness about sanitation and security" and "Now teachers show concern when students leave school."

In School 9, people paid more attention to physical and especially psychological health. Administrators told us that, in the past, parents and teachers did not want to talk

about psychological problems. They thought it was “a private thing.” For example, in the school, some students would lose self-control when they got very excited. When the monitoring teacher saw students behave in this manner, she realized they might have psychological problems. She suggested to students’ parents that they take better care of the child’s needs, including the child’s behavior and possible mental problems. Prior to the HPS project, if the teacher tried to suggest that parents pay more attention to their psychological situation, the parents would get very, very angry. They would think the teacher would think their child was stupid. In this situation, the school invited professionals to give lectures, twice, on the main topic how to be a good parent. During a lecture, they tried to make more parents understand that psychological health was very, very important for their children. Thus, more and more parents came to understand the importance of psychological health. After these lectures, some of the parents even shared their family history with the teachers, and tried to do an analysis together about their own child. And they also consulted with the professionals to try to figure out whether their child had some mental problems, or was just being spoiled. They even tried to imitate the situation if the child got out of control, how they could prevent and control such situations. When a student who always lost control had a quarrel with the teacher, the school just tried to calm him down and then analyzed his situation, instead of giving him some punishment. All of this went to show that the school and parents paid more attention to psychological health.

A father also thought that since the adoption of this project, the school paid more attention to their children’s psychological health, not only focusing on their study. Teachers stated, “School pays more attention to students’ health condition, not only in

physical health, but also the psychological health. And teachers pay more attention to students' confidence and self respect." Another teacher "thought that the biggest change [of the HPS project] is the change about the concept. Before, school paid more attention in virtue education, school construction, and improvement of study. But now, school will pay attention to a joint target including the attention to students' psychological condition, especially, students' health has become the priority. And accordingly, teachers also started to change their concept in their personal life." A student commented, "We learned to develop to a correct direction. I not only study hard, but also try to make myself healthy. Physical and psychological health will promote the study efficiency."

Attaining better psychological quality and confidence

Students, and some teachers, developed better "psychological quality" and confidence.

In School 5, parents informed us that, "students have better psychological quality to accept difficulties, improved their ability in handling with difficulties, all of which can help students become a real useful person in the future instead of being a sort of people who only have knowledge and no real skills." Parents also told us that students were happy and enjoyed this project and that students now had so much interest in the life at school that they preferred to stay at school rather than with their family. Teachers indicated that before the project there was more emphasis on "knowledge dissemination," and now they thought more about the "emotional status." Parents mentioned that teachers were both teachers and friends, and teachers reported that parents were more satisfied with their children.

In School 6, a parent mentioned, “Child improved their psychological quality and action habits.”

In School 7, one of the administrators remarked that this project brought “newer and deeper understanding, gives us more confidence and more courage to deal with the difficulties.” A teacher mentioned that they had a lot of pressure. According to Chinese tradition, participants told us, it was very hard for people to negotiate with other colleagues about their own problems, like pressure at work. After the project, they changed because they had the willingness and desire to talk with other people about their psychological problems. Thus, they could release the pressure which helped them be more healthy and become more open. They also would turn to older professionals because they got a lot of experience, to help them be more healthy and to relax.

Students acknowledged that they gained more confidence; for example, “After this project, we regained our confidence in our life and we are more optimistic about our future.” One student explained, “We failed in the Secondary Examinations and of course we didn’t have enough confidence. However, on the first day when we came here, we had a class about the career education, which helped me resume my confidence. Another event is: how to design your career, which also helped me gain more confidence. That’s why I thought that we must have this project in this school. And the result is positive, which can see from my own experience.” Another student recalled that she was not very sociable, not very communicative. But when she entered the school and experienced a lot of activities, she became more open, easy going, talkative, and communicative. And when she experienced some failure in a contest, for example, she would find someone to talk to, “to release the pressure.” A boy also mentioned that he was not very sociable. But

at this school the teacher gave him a lot of “personal consulting education” which helped him change his attitudes and become more communicative. Another student told us that after she failed examinations to advance her study in high school, she even took a rest for one year at home, before she entered this school. But when she entered the school, she got a lot of good education, such as career development courses. This made her more confident and better now. And the teacher always encouraged her to participate in many public activities, which made her more confident. She also learned emotional control, self-control, and interpersonal skills. One parent remarked that their son made big progress at school and became more mature. Two parents mentioned that before their daughters came to this school they were not very confident about their future life, but after the project they gained their confidence again. In this school, they had a chance to prove that they would still be useful and have some value. In the past, some parents also felt a little depressed because their sons or daughters could not study at a famous university. Since the implementation of this project, however, they felt they understood more about health and found that their children had changed and become more confident; the changes in their children made the parents feel more confident, too.

In School 8, parents mentioned a very good and “more comprehensive quality,” and that “Students are more grown-up and considerate to parents.”

In School 9, when administrators had some quarrels with others, they would try to think “from the other side, put themselves in others’ shoes,” and use the health concept to understand others’ behavior. A parent mentioned that through the education of the school, her child also changed his ideas about studying. He used to treat studying as a “boring thing.” After the project, he thought it was fun and very interesting, and she felt he could

lead a richer life. Another parent mentioned that when her son entered elementary school, he had lots of homework to finish. Whenever he could not accomplish this homework, he would cry out. As a young parent, they did not have experience how to handle this situation. Since the implementation of this project in the school, this situation never happened again. While the students still got a lot of assignments to do, and sometimes he had to do them very late, after the project her child just felt comfortable with this situation, unlike before, he would not cry or get nervous.

One of the students thought that her life became richer and more beautiful. In the past, she only thought her life was very boring, because only the academic study was “all around.” After the project, she had many things to do. For example, in the morning, she could do some physical exercise, and when she finished her study, she could listen to some music, and find some books just for leisure. One of the male students said he came to know the rules, “work hard, play hard.” Another student mentioned, “Only with healthy body and spirits, we can be devoted into our study. We should adjust ourselves and try to balance ourselves. And we can express our worries to other people.”

In School 9, children were also more motivated to study. Administrators told us that in the past, students studied because their teachers and parents told them they had to study. After the project, however, they just did self-study, more actively. A parent mentioned that their daughter’s concept of study changed. She used to treat study as a burden of life and did not like it. But, after the project, she thought that studying was very interesting and full of fun. Even when she was back home, she would still keep on laughing and be very happy. A student wrote, “Students are stricter with themselves and teachers felt so happy about this change, which also relieved their pressure.”

Forming friendships between teachers and students

Particularly in School 9, many participants mentioned that teachers and students became friends.

In School 1, we also heard that students and teachers were “like friends.”

In School 9, a student explained to us that in China, the relationship between students and teachers was such that teachers were just responsible for teaching, while the students just focused on their studies. After this project, however, they could know “both of these parts;” both parties came to know more about health. So the students would do things better, and develop in all aspects, thus, could make their teachers feel more happy, too. On the other side, the teachers, themselves, also learned many new things, and changed their concept. They wanted to negotiate more with their students. With their joint efforts, their relationship improved, “Just like friends.” Another student also thought that the relationship between students and teachers now was “very, very, very good because the students came to treat their teachers as friends so they could share some life experience,” and if they got some problems, they would turn to their teachers to find help. Students also mentioned, “Teachers and students become friends and students can ask teachers to help them solve problems and difficulties,” and “Teachers became nicer. According to Chinese traditional, teachers should give students pressure. But now, we can become friends with teachers, which is a big change.”

In turn, a male teacher talked about his increased satisfaction with his work. He taught for many years and felt a little tired. Objectively speaking, as a teacher, he would get a lot of pressure from students, parents, school, and teachers focusing on the

academic study of their students. Sometimes even though they worked very, very hard, some children just could not meet the expectations. So, the teacher might have felt very upset, sometimes angry. This bad mood would have an influence on the daily work, and he knew it was not very good for the maintenance of relationships between teachers and students.

After the school implemented the project, the teachers' concept of health changed a lot, and so did their daily teaching methods. Since the teachers changed first, the students felt more attachment to their teachers. The students became "more winning," and they wanted to share some private things with their parents and their teachers, like the problems they had in interpersonal communications. Teachers, as adults, had experienced all those things already. So they could offer them some valuable suggestions how to handle these problems. Thus, the students came to treat their teachers as a "big brother," who was a very important person in their growth. Some things children did not want to share with their parents, but they wanted to share with their teachers. So, teachers and students had better communication, and stronger relationships.

Every year, September 10 in China is Teachers Day. On that day, the students send a lot of cards to express their love for their teacher. Or, they send some messages through their cell phones to show teachers that they were great. Sometimes, when students have had birthday parties, they have invited their teachers to join in. This seldom happened before the project, but after the project, it became a common phenomenon. Thus, the "intimacy" increased. The teacher told us that was why he wanted to talk about the satisfaction in work; it meant that students and teachers were caring for each other more and more.

Feeling more relaxed

These developments made especially parents, but also some children and administrators, feel more relaxed.

In School 7, both parents and children reportedly became more relaxed since the implementation of this project. A mother expressed that parents felt more relaxed because they had the confidence that the school would take good care of their children. One mother gave an example: She thought the school was very safe. At one time, when she wanted to visit her daughter at the school it was very late at night. The guard at the door did not allow her to get into the school, and she could only call her daughter. Her daughter told her that it was a certain regulation of the school that outside people could not get into the campus freely. If the students wanted to go out late at night, they had to report to their teachers and get their permission. So even though she could not see her daughter at night, she felt very relaxed and safe because she thought it was great for the school to take such measures to protect children. Parents and students also reported they were more relaxed because students increased their confidence, as detailed elsewhere. A student wrote, "Since I came here, the project helped me not be afraid of difficulties." A school administrator reported that his mind could be at ease because the number of injury incidents had decreased sharply.

In School 8, parents mentioned that they were more relaxed because the bus was taking their child to school, and the "project not only pushed the development of the school, but also very helpful for the growth of their children." This made parents more relaxed when they were working away from home.

In School 9, a father told us that he felt more relaxed and comfortable leaving his child in school because with the development of the Internet, and the development of the society, children got more chances to know more new things. The father felt that maybe there were some things that were not so good for his child's growth. Since the implementation of this project, however, the father felt that the school was taking better care of the children and created very harmonious and sound surroundings for their growth. He thought that many parents felt more relaxed and comfortable, and he himself could focus more efforts on his own job. The father, who was a newspaper reporter, mentioned that he sometimes had to work late at night and then did not get up early in the morning, but his child would get up by himself and brush his teeth, wash his face, and, with some pocket money, buy breakfast by himself. Since the implementation of this project, the parents felt more comfortable about this, knowing that their child could take good care of himself. Parents also responded that "My child is improving his/her self-control ability, which eased my worries; My child increased his/her psychological quality, which eased my pressure," and "I also thought that I felt less worried if my child can stay in a school like this and grow up more healthily. Now we have more communication with my child and with the school, which is a very good cycle."

Changing knowledge and conceptual understanding

Participants reported that they were increasing their knowledge of many health issues such as nutrition, hygiene, safety and security, the harm of tobacco, how to avoid injuries, and psychological knowledge. They were also developing a broader concept of health and increasing their understanding of the HPS concept.

Increasing knowledge of health issues

Participants improved their health-related knowledge.

In School 1, the principal told us they had four types of programs: for teachers, students, parents, and citizen in community. The knowledge level increased more than 95% for these four populations. During the SARS episodes, they conducted “knowledge propaganda” such as the importance of washing hands and wearing mouth mask. More than 95% of students answered questions correctly. Parents mentioned they increased their knowledge about Vitamin E deficiency; they learned about the disease that is associated with the deficiency and what kind of food to eat to obtain enough Vitamin E.

In School 4, school administrators mentioned that, “the knowledge of the harm of tobacco has been widespread to parents and gets them improved for the knowledge.” One example of this was that they had two sessions of group discussions, and they compared the first group discussion about knowledge of the harmful effects of smoke with the second. They found that there was an improvement in knowledge about the “bad things about smoking between the first session and the second.” Students also talked about an increase in some knowledge about the bad consequences of smoking. Students “improved their comprehensive quality and understand more about the health.”

In School 5, school administrators told us that everybody gained knowledge and skills. For example, before the project many students were “weak in psychological knowledge.” Some students did not know what anxiety was and how to reduce it, but after the project, they knew how to relieve stress. School administrators also informed us

that students did not know how to ask for help, but after the project they knew several ways to ask for help from other students and from teaching staff.

In School 6, administrators informed us that through this project, the students learned more about psychological issues. Now the students knew what was normal and abnormal about psychological issues. A teacher said that students knew or recognized which behaviors would be helpful for development, and that this knowledge would also have some impact on their families. “Students have better understanding about the knowledge provided. Understand how to promote their own health.” A student mentioned that she got more knowledge about health in this school than in her previous school. Several students told us that they learned a lot about health and nutrition and obtained “individual health knowledge.” Parents reported that they learned something new from the materials their children shared with them. After learning this material, they gradually realized the importance of nutrition and balanced diet. They put their knowledge into practice in their daily eating habits, and they let their friends know about the importance of nutrition.

In School 7, many participants reported that they gained knowledge about health. The deputy headmaster wrote, “The biggest change is that all the teachers and students have deeper understanding about health.” For example, in regard to knowledge about first aid, administrators mentioned that before this project, students knew little about how to avoid injuries, such as what they should do when “facing drowning and touching electricity lines.” After the project, more and more children got to know how to handle these situations. For another example, in PE, before physical activity, they did some warming up exercise. In the past, they did not know that it was important to do these

exercises before physically exerting themselves. After their education, there was great improvement in this aspect. Teachers mentioned that through lectures or publicizing materials, students learned more about hygiene, health, the prevention of disease, and first aid in accidental injury, and they gained knowledge of nutrition and buying and eating habits. A student remarked, “The understanding is deepened about legal, health and security.” A mother mentioned that her child learned more “knowledge about health,” and the parents could learn more “knowledge of health” from their child. She recognized this as a knowledge transfer. Examples included that when her daughter learned about electricity, she could repair the light when she went back home, and she taught her mother some knowledge about electricity. Another example related to her father who was an alcoholic and liked drinking very much. The daughter shared some disadvantages of drinking too much, and she helped her father live more healthily.

In School 8, parents mentioned that their children had a better understanding of the concept of safety. Before the project, students did not know that they should look to the right and left before they crossed the road. During the project, they deepened their understanding of traffic security, zebra crossings, and stop signs. They also learned which number to call in case of an emergency. Children learned that they could not ride a bicycle to school if they were younger than age 12, and they could not ride a bicycle with a person on the back if they were younger than age 16. They also gained hygiene knowledge, including that one should brush teeth twice a day, wash one’s face and hands, not share a tea cup with others, have a bath regularly, and take care of one’s hair and fingernails. They also learned that they should not smoke or drink, that they should clean up after themselves if they ate fruit, and that they should wash their hands before dinner

and after going to the toilet. After the safety lecture, a girl learned that she needed a light on the back of her bicycle. Furthermore, a school administrator “grasped more knowledge about disease prevention knowledge, security knowledge, sanitation knowledge and living skills.”

One teacher stated, “After we launched this project, we deeply understood the meaning of Health Promotion School project; we also grasped much new knowledge, for example, the six points of the project and all the security knowledge.” Teachers also reported that, “Students strengthen their security consciousness. With the education from the school, students have stronger sense about security and improved their surviving skills.” Teachers also grasped more health knowledge and understood that they should pay more attention to their health. Parents mentioned that “Students have stronger sense about how to prevent injuries and how to enrich their sanitation knowledge” and “Students have stronger sense about security, for example, they wear yellow caps and they should stop, observe and then pass when they prepare to cross the streets.”

In School 9, administrators remarked, “In the past one year, teachers, students and their family members have deeper understanding about health.” One of the administrators considered the most important outcome of this project, “the complete understanding about health, which can be seen from the changes in the daily life of teachers and students.” Another administrator told us about what had been different in his life since this project started was his understanding of the importance of health in diet, exercises, and arrangement of work. This administrator also understood that he should “attend more exercises and entertainment events.” Teachers gave the example that the school had many lectures and offered more knowledge for students about health. Before the project,

students would sometimes say not-so-polite words without any regard for the results. After the project, students would try to think for themselves and decide whether what they were about to say was appropriate or not. Teachers also reported that they now knew how to self-adjust, how to listen, treat the problems with great patience, and understand how to educate juvenile students. Students said they were learning more knowledge about health definitions, which would benefit them their whole life. Parents said they learned to understand “the real content about health” more thoroughly, as well as the relationship between study and health.

Developing a broader concept of health

Participants improved their understanding of the broad concept of health.

In School 5, we heard from parents, students, and teachers that the school focused on a broad concept of health. Students repeatedly told us that they improved their understanding of health. As soon as students learned “the knowledge about health,” they shared their new information with other students. Before the project started, many students believed that health only related to physical aspects. After the project, students told us they gained knowledge about health and knew that it involved psychological and social aspects, such as “social adaptability,” as well. One student wrote, “Students strengthened their consciousness about health and understood that health is not only physical health, but also good social adaptability.” Another student stated, “there are some changes: first, on the concept, I realized that 1. Health is more important than child’s study. 2. Health includes physical and psychological health.” Participants reportedly gained an understanding that health was not just physical, but also

psychological and social. This included, for example, being friendly to other people, dealing with frustration, and fostering democracy and harmony. A teacher mentioned that when she found a student in class who was negative or passive, before the project started she thought this student might be physically ill, but after the project she tried to think: is this student physically ill or perhaps mentally depressed? The principal informed us that students and parents realized that health could promote the development of the school.

In School 6, teachers told us that one achievement of the HPS project was that they developed a sound idea about health, in students, teachers, and parents, because health promotion was quite a new idea and a new concept for them. Rarely had they heard that concept before. Now, they gradually developed this as a solid concept of health promotion. A parent found helpful that this project “improved the quality of the whole society and change the concepts.”

In School 7, one of the administrators with 40 years of education experience as a teacher told us he could feel a big difference and change, because in the past, people just treated health as physical health, or any sickness. After the project, they came to treat health as a “system,” including physical health, psychological health, and also social skills. He felt that was a big improvement. The deputy headmaster wrote, “I thought that we have more comprehensive understanding about health. So when we consider how to promote our work, our ideas will become more comprehensive and pay more attention to people, which promote the love between teachers and students.”

Teachers also remarked that in the past, the school paid a lot of attention to the growth of the students, but they only thought that physical health was very important. Since the implementation of this project, however, they came to realize that health also

included many other areas including how to handle difficulties, how to develop their social skills, and other such things. School administrators told us that, in the past, parents thought that health meant only physical health. After implementation of this project and education of the school, however, they came to realize that health included more things than just physical health; it also included psychological health. It helped them realize the meaning of health and broaden their view. One mother reported that, as a parent, in the past she only thought that what she could do was to offer good foods for her daughter and to help her “in the physical health.” After the project, she realized that there was “another work she needed to do,” such as to safeguard her daughter’s psychological health.

Students also mentioned that, in the past, they thought of health only in terms of physical health. After the project, they knew that health also included psychological health and social skills. One student thought that psychological health was more important than physical health.

In School 8, we heard many times that the concept of health had changed among students, parents, as well as teachers and school leaders. However, people did not elaborate on this change. A teacher also mentioned that the outlook of the school changed. A girl described health as including three parts: physical health, social skills, and psychological health. Health also meant to go to a hospital when one is sick, or to tell a teacher in school or a parent at home.

In School 9, many participants mentioned the change in concept as one of the major achievements of the HPS project. Some elaborated in terms of a broader concept of health and increased study efficiency. Teachers used to think health was just physical health, now teachers realized that health involved physical, mental, and social health.

Parents used to think that children who brushed their teeth, ate well, and exercised were healthy, but after the project, they realized this was too narrow. More parents came to realize that a healthy child meant physical health, mental health, and communication skills. The school and parents used to think that academic study was the most important. After the project, however, they realized that quality education was more important so that children developed in all aspects, psychological, physical, social, and in good surroundings, not just narrowly focused on academic study. Students also learned to judge if something was healthy or not, and, as they broadened their concept of health, they realized that their mental condition had a tight connection to their studies. For example, studying with relaxing in between could increase study efficiency. In the past, the school conducted activities that focused on values and politics, but after the project, they were considering the overall education of students. One student wrote, "I understood that I should be a good student, not only just in intelligence, but also in virtue, intelligence and sports. I should be a student who develops in an all round directions, which is the concept of health." A parent stated when describing a Health-Promoting School, "First, the change of the concept. Before, people always thought that students should be good enough if they could achieve good academic results. And the other things were not important at all. After this project, we realized health is a complete concept, including physical, psychological, social and environmental sides and so on."

Gaining a better understanding of the Health-Promoting School concept

At each school, we asked participants how they would describe a Health-Promoting School.

In School 1, where we conducted interviews early in the development of the program, during an informal question to students, they said they knew their school was a Health-Promoting School, but they could not explain what a Health-Promoting School was. During the interview, students described a Health-Promoting School as a school that should be smoke-free; no student should lack iron or suffer from diabetes; students should have good mental and physical health and enough knowledge on nutrition; students should get along well with each other; teacher should give enough knowledge and skills about nutrition. Parents gave a reluctant yes when asked if they had heard about “Health-Promoting School.” On the other hand, they totally agreed with their school becoming a Health-Promoting School and thought it was a very good idea. Parents said a Health-Promoting School should give guidance to students to form good habits for living, studying, behaving, and students should cooperate well. Parents further thought a Health-Promoting School should not emphasize only physical health but also mental and psychological being.

In School 2, a mother, who was a hospital employee and consultant to the HPS project, thought “Health-Promoting School” was significant. It reached students at a vital period of growth.

In School 3, the principal described the HPS concept as follows: “(1) focused on individuals such as students, faculty, parents etc., thus, on humans themselves; (2) focused on individual’s life quality including healthy being, hygiene, psychological being, work state; (3) to improve students’ state to study and teachers’ work efficiency; (4) to make the school a mutual home for faculty, students, community, and society.” The “Strategy and Steps for the Program” in the newsletter addressed various components of

a Health-Promoting School: formulating school health policy, the physical environment of the school, the social environment of the school, relationship with the community, health skills for individuals, and health services. Students described Health-Promoting School as “something about basic knowledge.” Because its entry point was psychological health, the terminal goal for the school was to build good relationships with the society, including community, parents, students, and teachers. A mother believed the significance of the project was to improve students’ mental well-being and to “upgrade their skills to be adjusted to society, besides their normal studies.”

In School 4, in which we conducted interviews approximately midway through the program’s implementation, administrators described a Health-Promoting School as follows: They make detailed regulations and policy to implement the project, and they try to improve the awareness of students, staff, and community about the project. A Health-Promoting School’s environment would be green and there would be a “humanity atmosphere” and coordination between staff and students. Students would have improved “physical and mental health schedules.” The school would “more correctly” carry out health education—increasing knowledge and levels of health for students and staff. The school would also provide the best health services for staff and students, including regular physical exams, prevention of common and infectious diseases, reasonable coverage about nutrition, and psychological assistance for students and staff. The school would get support from parents and the community and would help other schools to become Health-Promoting Schools.

Teachers envisioned a Health-Promoting School as: The school would try to work with society to provide much safer and healthier surroundings of the school and to

encourage the community and parents to participate. It would create healthful surroundings and a good and friendly atmosphere. It would have a beautiful environment and a “positively humanity” environment. It would get the full support of the government and the community. It would support the physical and mental health as well as the environment. It would also help other schools to become Health-Promoting Schools. One teacher described a Health-Promoting School as, “It means that all the students, teachers and people in the whole community will try their best to make the campus environment beautiful, sanitary and harmonious. Students and teachers will be offered with health education and encouraged to participate, promoting and guaranteeing the health condition of all the students and community members.”

Students described a Health-Promoting School just briefly as a beautiful environment, excellent facilities, and a good surrounding for staff and students.

Parents envisioned a Health-Promoting School as having a beautiful campus with a very clean environment and clean air without pollution. They felt that health promotion would not just relate to the physical environment (“hardware”) but more importantly to psychological issues and a positive attitude (“software”). They also felt that a Health-Promoting School would not just be beautiful surroundings, but teachers would show healthy behavior—such as not smoking. Teachers and students alike were actively participating in implementing the HPS project. One parent described a Health-Promoting School as, “It should be: 1) The environment, and the behaviors and speeches by the teachers should reach the requirement of Health-Promoting School. 2) All the students should strictly obey the rules of Health-Promoting School.”

In School 5, administrators described a Health-Promoting School as follows: The school will “combine with the community to improve the healthy growth and comprehensive development of students.” The school will let students get more knowledge and skills on health promotion such as on illegal drugs and tobacco control. If students have psychological problems, they can ask for help. The school will try to cultivate a good atmosphere to let students develop comprehensively. Everyone should know about the importance of health promotion and have the necessary knowledge and skills to deal with health problems. One administrator wrote, “Health Promoting School should encourage all the students and teachers to put health issue as priority on their agenda and realize it as a voluntary target in their study and life.” The school should work together with the community, as this school got support from the community and provided assistance for the community.

Teachers envisioned a Health-Promoting School as: The students and staff should be healthy and the school should provide advanced facilities. The school should have a good and friendly atmosphere including good relationships between leaders and staff, leaders and students, staff and staff, student and student, female students and male students. A class and a class should be equal. First, the school would develop the concept of “Health First” and the necessary skills to develop health. Health promotion should not be limited to the campus but be extended to the community and parents. What is done on campus should get the support from the communities. The school should provide health services for students. Eventually, consciousness for health should be automatic.

Students described a Health-Promoting School as: Health encompasses physical and social aspects. The school will provide a good environment for study and life. Every

student will have a good psychological status and school teachers will act as psychological tutors. A Health-Promoting School concerns not only the physical surroundings, but also interpersonal relations and psychological aspects. The school will be well organized and provide the necessary knowledge and skills. The school will help create a good environment for well-being, not only on campus but also off campus.

Parents envisioned a Health-Promoting School as having good “hardware” or facilities, being psychologically healthy, and having a harmonious relationship between the teachers and the students. A Health-Promoting School should have the concept of health, and all staff and students should have sound knowledge of health. The school will train students to society.

In School 6, administrators said a Health-Promoting School should have six features: “(1) a health promotion policy, (2) good physical surroundings, (3) improve the health skills of the students, (4) improve the physical and psychological health for the teachers and the students, (5) the health knowledge and concept should be transferred from the school into the community, into the family, (6) provide health services.” They believed that a Health-Promoting School should have the students, parents, family, community participate together to promote health. One of the teachers mentioned three characteristics of a Health-Promoting School: “(1) students’ physical and psychological well-being enables them to adapt to their surroundings and environment went very well, (2) knowledge can be disseminated from the students to their families, so that the family can get more about health knowledge, (3) the student can enter the community to disseminate knowledge.” Another teacher added that a Health-Promoting School would provide “peaceful and comfortable surroundings for the students and will let students,

both female and male students, communicate normally at a suitable level.” The Health-Promoting School would provide “safety for students, as well as medical services for the students.”

Teachers felt that one of the most important things was to develop the concept of health, in students, staff, and parents. For example, “if we have the health concept, then we can reduce cigarette consciously.”

Students envisioned a Health-Promoting School as a school that would “let the people from the community know what role nutrition will play in health and will help to develop enough knowledge about nutrition.” The Health-Promoting School should “advocate healthy life from small teams to larger teams, then whole society.” A Health-Promoting School ought to be “paying more attention to healthy diets, also for the quality of the physical aspects and the whole quality of the students; both to the student and to the teaching staff.”

For parents, only one mother responded during the interview and she said a Health-Promoting School would be for both the development of the students’ academic education and their physical and psychological health. One of the parents wrote, “All the people should pay attention to health and sanitation, clean and quiet campus, and perfect facilities in the school.”

In School 7, administrators gave four different responses: The deputy headmaster wrote that Health-Promoting School “means the broadening of my mindset, deeper understanding about the real meaning of health; more efforts on promoting the health in the future work; and more comprehensive work in training students.” The director of the public relations office responded, “It means that students and teachers’ physical, mental

and social adaptable abilities have been reaching to a better condition with the efforts of all the people.” The managing director remarked, “Understand that school can be the place to think about health; school can popularize the health knowledge among people and influence more people including family members and community residence; meanwhile, understanding about health is improved.” The vice headmaster, who was responsible for student management, responded, “(1) promote my work to be clear in the target, systematic and scientific; (2) Increase the consciousness of health; (3) The school is more standard in students management point; control the behaviors which are against the rules before it breaks out.”

Teachers mentioned that the HPS project broadened their knowledge about health, realizing that health referred not only to physical health, but also to psychological health and social adaptation abilities. They also saw a connection of the project to the growth of students. They said that when students came to this school, they were not very confident, and this project helped them grow up. They realized that it was important to help students develop some basic social skills. In their written responses, teachers mentioned that Health-Promoting School meant to them a deeper understanding about health; systematic behavior control; good planning; improvement of the working environment; more comprehensive working content; active participation in all activities to promote the development of physical and psychological health; a happy and healthy teaching and study environment; improved psychological, physical, social adaptive abilities; and promoting the comprehensive development of the school.

Students thought that Health-Promoting School stood for “a very comfortable environment in which students can learn and feel safe.” It helps them “living better and

growing better;” at the same time, it helps them to develop “in sound direction and building confidence.” The HPS project helped them change their attitudes about health being social and emotional, as well as physical. In their written responses, students described Health-Promoting Schools as having a good study and living environment which is good for physical, psychological, and skill abilities; having a comfortable and clean environment to grow up healthily and happily; a clean and sanitary environment which contributes to a better mood and devotion to the project; and more understanding about health.

Parents realized through the HPS project that health meant not just the physical aspect of health but the attitudes, too. For example, one daughter was not very competent in her first school and she felt depressed, so the mother was glad this school was focusing on psychological aspects of her child’s development—helping her to develop confidence. One son did not listen to his parents before, and after the project, the father and his son began to negotiate more. In writing, parents described a Health-Promoting School as “a study and living environment which is clean and sanitary and can improve body, mental and skill abilities; provides more understanding about health; and has parents not worry about their child when the child is at school.”

In School 8, administrators described the HPS effort as a project that makes leaders pay more attention to health and causes them to make improvements to create a safe environment for living and studying. Administrators told us that they believed a Health-Promoting School is to create an environment about health education and social skills development, not only in the school, but also in the community, by the joint efforts of all parties: the teachers, the leaders, the parents. It means that schools should adopt

various activities to create awareness of health of students and parents. For example, they can offer some lectures about transportation regulations and some lectures about hygiene knowledge to teach students. The vice headmaster described, “It is a project to be launched according to the school condition, with the joint efforts of teachers, school leaders, students and their parents, by various activities, and with the joint purpose of promoting the health development of the students.” The accountant responded, “Try to use all the means to increase students’ health consciousness.” The mentor of the Young Pioneer team defined Health-Promoting School as “a project which will launch a series of effective health education activities, create a health education atmosphere, increase people’s health consciousness and improve health skills.”

School 8 teachers saw a Health-Promoting School as teachers, official leaders, and students paying a lot of attention to this project and working hard to find resources. They told us that teachers in a Health-Promoting School would spread the knowledge about health through class meetings, and the concept of health of the teachers and students are changing. Great changes would happen in the surroundings of the campus environment, and teachers stopped smoking. A teacher wrote, “Based on the real condition of the school, use the school to influence the surrounding areas, and attract the attention from the community and all the family members to create a kind of atmosphere to promote students to grow up healthily.” And other teachers wrote, “Health Promotion School means that all the members in the school and the community will work hard together to create favorable conditions, accumulate experience, set up organizations to guarantee and promote the health conditions of students,” and “it means school will

promote the safe, healthy and orderly development of the school based on a series of regulations and rules on security, environment, cultural atmosphere and surround areas.”

Students described a Health-Promoting School as an expression of love and caring coming from the parents, students, and the leaders of the school. They spoke about it as a kind of health coming from the adults, in order to promote and protect the health of students and parents.

For parents, Health-Promoting School meant a school that offers a chance to help their children grow more physically and mentally healthy and lets the parents know “what happens in their children about health.” It meant changes to the school environment, such as the playground, which people living in the village can also utilize to do exercises, and providing safe transportation to and from school for children. It also meant that the vendors outside the school moved away. According to the parents’ understanding, the definition of Health-Promoting School stood for a very sound environment where children can grow healthily, both physically and mentally. Parents wrote, “It means that it is a school which will guarantee the health and security of students. Students will be safe and their behaviors will follow the rules,” and “Health Promotion School is not only good for the development of the school, but also for the physical and psychological health development of students.”

In School 9, on behalf of administrators, the person in charge of the HPS project explained that the school is not just a place to study, but also to grow healthy. According to administrators’ understanding, this project is to change the concept of health and make health a priority in education to cultivate talents. It follows WHO’s idea for life-term development of students: taking psychological health and social skills to realize multiple

aspects of human development. Administrators saw health promotion as a systematic project, combined into daily education work, and viewed a Health-Promoting School as an opportunity for school development.

Teachers saw a Health-Promoting School as offering guidelines and structures for the growth of students to help them lead a healthy lifestyle and grow healthy in psychological situations. They also felt that a Health-Promoting School helps teachers to readjust. In one teacher's opinion: "it treats health as priority, and based on this will also promote the long-term development of the school." Teachers believed that a Health-Promoting School raises the requirements for teachers so they can develop soundly themselves in psychological and physical aspects and teach their students better and be more tolerant and patient. One teacher remarked, "with the concept of Health as the Priority, as a teacher, I should direct students in a timely and appropriate way to have a kind of healthy living style, healthy psychological condition and promote them to develop healthily. I also should pay attention to this in my personal life."

For students, Health-Promoting School meant that health is defined broadly and includes physical and mental health and how to communicate. It meant that, "you should study well but also keep your body healthy and sound to develop in all aspects." Students believed that their mental situation had a tight connection to their studies. A student described Health-Promoting School as "I thought that 'Health Promotion School' gave me a brand new and complete health concept, which provided me a perfect environment so that I can make progress always."

Parents believed that in a Health-Promoting School health included not only physical health but also psychological health and social skills. One parent wrote, "'Health

Promotion School' should not only care about students' study, but also care about their physical and psychological health, which should be welcomed by all the parents." Parents also told us that in China, there is a saying that only when you change your ideas first, then you can change your actions; therefore, the change in concept was very important.

Changing behavior

Participants reported that they were actively participating in the project, increasing physical activity, improving sanitary habits, reducing or quitting smoking, changing various bad habits, eating more nutritiously, sustaining fewer injuries, and improving parent-child communication.

Actively participating in the project

Students and parents told us that they actively participated in the project.

In School 4, administrators said that the parents of the students knew about the activities held in the school and actively participated with activities. Parents mentioned that they tried to cooperate with the school and persuaded some of their neighbors, relatives, and friends to know about health promotion, including the prevention of tobacco use. One parent responded, "Took part in the activities held by the school and cooperated with the school to publicize to neighbors and accepted child's suggestions such as no smoking." Students also participated actively. Students wrote, "First, I took an active part in this campaign, and I improved a lot in my personal habits," and "I read the materials distributed by the school to my parents and told them that smoking is harmful

to our health.” Another student reported about what he or she has done differently, “Strengthen the relationship between the school and family to have more communication; follow schools’ demands, protect trees, and keep good sanitation habits; publicize the knowledge that smoking is harmful to health.”

In School 5, students reported that they took an active part in the events at school such as in sports games, in the election of health ambassadors, in practicing social adaptability, and in popularizing health knowledge. Sometimes, students stated that they were doing this in an effort to help their school become a Health-Promoting School. A parent also reported taking active part in school events while previously having cared only about his/her child’s study.

In School 6, a student summarized how students participated: “1) We did well in what students should do; 2) Cooperate well with our school: we popularized the knowledge to our family, community and neighbors; 3) form good habits by ourselves.” A parent mentioned, “I will cooperate and support school.” A father told us that his child increased some physical activities since this project.

In School 7, all the teachers and students were engaged in the “whole implementation of the project and were very serious and active.” One of the students mentioned, “All of us are very active in joining this project.” A parent reported about encouraging her daughter to take an active part in the social practice events, to have more exercises and to improve her ability to face difficulties.

Increasing physical activity

Some participants increased their physical activity.

In School 8, one teacher said that 3 years ago, she never did any physical exercise and was very fat. After the implementation of the project, however, she actively participated in all kinds of physical exercise and was in good shape. A parent mentioned that people did not have an opportunity to exercise in this rural area, but after the project they could do physical exercise like running on the new playground, even in the winter. Villagers, farmers, and teachers did the same. One parent told us that students also did more exercises.

In School 9, the principal used to take the bus, but after the project he walked home, which took him about 20 minutes. With the good example of the principal, many more teachers were now walking home. A student told us that when she used to finish her homework she used to do more, but, after the project, she did physical exercise to get refreshed. One son failed in physical exercise before he came to this school, but, after the project, he did excellently.

Improving sanitary habits

Participants mentioned that they improved their sanitary habits.

In School 4, students did not throw litter on the ground anymore, or spit anywhere, but used the trash bin. The students who resided in the dormitories had to wear only clean clothes, and they had to actively participate in keeping the cafeteria clean. They had greatly improved their sanitary habits, such as washing hands, cleaning clothes, brushing teeth, etc. Now it was their “own habit” and they did not need to be told to do this. Two students mentioned that they now protected trees and flowers, and some began to raise flowers.

In School 5, students talked about paying attention to the sanitary condition of the school and “voluntarily protecting the environment” and making their campus “an ideal home.” Teachers also informed that students paid more attention to their personal hygiene and kept their study surroundings, including classrooms, clean.

In School 6, administrators and parents informed us that after the project began, students gradually reduced some of their bad habits, such as throwing away litter. Teachers also mentioned that, “now no students will throw away any litter, or throw out any germs or chewing. Every student would wrap up the germs or chewings by the paper, then throw it into the garbage bin.” A mother reported that her son used to ignore cleaning up his bed, but after the project, he piled up the blankets in a good way—because the school educated them, trying to learn from the People’s Army, to clean up by themselves.

In School 7, many participants mentioned that their sanitary habits improved. For example, students told us that in the past, some students did not pay much attention to “environment maintenance.” For example, they would throw garbage everywhere, but after the project, this seldom happened. As one student wrote, “I paid less attention to pick the garbage. However, after this project was started, I not only had this habit to pick up the garbage, but also had this consciousness.” One student acknowledged that although she knew it was not right to litter, not doing so was difficult. After repeatedly emphasizing this point, and “the guarantee of the school,” now she will never do that again. A father mentioned that before the project, his son did not wash hands before dinner and after dinner, but he did so now.

In School 8, which was located in a rural area, the hygiene situation used to be very bad, according to school administrators. Since the implementation of this project, a mother reported that she could see great changes in the hygiene habits of her child. For example, the child now brushed her teeth twice a day and washed her hands before and after dinner. Another child now got up early enough to brush his teeth. If he would not do so, his parents would tell his teacher and he would get a lesson. A student said she was cutting her nails regularly after attending a lecture on hygiene. One little boy said he never washed his hands before dinner, or after toilet. After the project, he not only did so, he also persuaded those people around him to do the same. Another student said when he saw garbage on the ground he would pick it up and throw it in the garbage bin. Students used to go off campus and buy “unqualified foods” and throw the packaging away, but after the project, they seldom did either. Many teachers mentioned changes in sanitary habits, but did not specify. One teacher wrote, “Now the self protection consciousness of teachers and students is strengthened greatly, sanitary habits are improved and security behaviors are more standard.”

In School 9, a parent told us since their son lived in the dormitory he learned to wash underwear and small, light clothes by himself, which he had never done before. Another parent said their son never cleaned up before, but after the project, he paid attention to cleaning. One child now cleaned up when he came home and found that it was not very tidy. Another child helped her mother with housework, which she had never done before. On campus, after teachers and peers persuaded them, children did not throw away things anymore. This improved the hygiene situation.

Reducing or quitting smoking

Many teachers, fathers, and grandfathers reported reducing or quitting smoking.

In School 1, some students told us that they had successfully persuaded their fathers or grandfathers to reduce or quit smoking: A 73-year-old grandfather quit smoking. Another grandfather was also a heavy smoker. Because of his grandson's instructions, he greatly reduced his smoking. The grandson let his grandfather know that smoking would reduce longevity and that he was scared. A son, whose father was a heavy smoker, gave him a warning every time the father smoked, and he put up a notice in the room. His father stopped smoking at home, but it was hard to interfere with his smoking at work. Another student's father was a smoker. Every time the daughter saw her father smoking, she would add up how much money he spent on cigarettes, or hide his cigarettes in a cupboard. Another daughter, whose father smoked in the car, showed her father every time that she was uncomfortable and threw away his cigarettes. The school nurse added that parents had complained that children hid their cigarettes or threatened that they would not study hard if their parents did not stop smoking after the school carried out a non-smoking activity. A teacher added that during the non-smoking day on the square, an old man said that his grandson forced him to stop smoking by refusing to play with him if he did not stop.

School 2 encouraged teachers to stop smoking, step by step: 1) not smoking in front of students, 2) not smoking in meetings, 3) not smoking while walking. The headmaster said that he had smoked for 30 years, but he started by setting a good example himself and would not smoke in public anymore. Because the headmaster said and did so, another teacher also did not smoke in the office anymore. Furthermore, a

female teacher said that in the past male teachers smoked in offices or in the schoolyard, but after the HPS meeting she never saw any teacher smoke in public.

In School 4, staff, parents, and grandparents told us they reduced or stopped smoking. The mid-term report stated, "Through propagating, educating, encouraging, a lot of smokers gave up smoking one after another." One child's father had reduced his smoking from several packs to one pack. A grandfather used to smoke heavily in front of his grandchild but his child said "don't smoke," so he had to decrease his smoking and now his fingers were not yellow anymore. He said he greatly decreased his smoking and never listened to anyone but his granddaughter. One parent mentioned, "In order to cooperate with the school, I start to quit smoking." Parents reportedly would stop smoking as soon as they enter the campus. Many teachers reduced or quit smoking. One teacher explained that some staff in this school used to smoke. So, the school provided some information, both from the Internet and from the newspaper, about the health consequences of smoking, for example, heart disease. After staff received this information, the rate of smoking among the staff greatly reduced.

In School 5, some of the male staff had smoked for a long time. After the school became a smoke-free campus, some staff quit smoking completely, and others did not smoke on campus or in front of students.

In School 6, a teacher informed us that "many friends started to stop smoking," and a student revealed, "Before, some male students will smoke in some secret places. Now, it has been improved a lot." A father reported that he tried to reduce his cigarettes, and at least not smoke in front of his son. Another father said that he smoked and drank less.

School 8 made major achievement with reducing smoking. School administrators told us that there were a lot of smokers among the male teachers, but after the project, none of them smoked. After the interview, the school gave us specific data: this school had 14 male teachers of whom 9 were smokers. Eight quit smoking more than 1 year ago, one teacher still smoked, but not on campus. The school made a requirement that asked them to quit. One teacher used to smoke two packs of cigarettes a day, but after the project he never smoked. One teacher said he liked to smoke when he wrote. However, he quit smoking and turned instead to tea drinking and eating fruit such as oranges. Teachers told us that there were two male teachers were heavy smokers at the beginning of the HPS project, and it was hard for them to quit. After the no-smoking requirement at school, they did not smoke on campus and tried to smoke little when at home. They made more and more progress and presently never smoked. A mother told us that her husband liked smoking very much, but then the teacher wrote a letter to their home, and also her child took some education about health. When her child came back home, he tried to persuade her husband to quit smoking, and her husband stopped smoking. Her child coaxed the father like this, "if you smoke, you'll do harmful to me." So the father had to quit. Another mother said it was very hard for her husband to quit. Whenever he asked for a cigarette, they offered him an apple, banana, or candy. One girl said before the project, when she saw relatives smoking she kept silent. After the project, she would ask any of her relatives who smoke in front of her to throw it away. Also, while we visited this school, it was reported to us that our drivers smoked in the schoolyard and the students of this elementary school asked them to stop.

In School 9, the principal used to smoke but he quit—as an example to others. According to teachers, there was no smoking and drinking among students.

Changing various bad habits

Many participants told us that they changed their bad habits, although in most cases they did not specify what those bad habits were.

In School 1, students said they did an activity “to remove bad habits and set up good habits.”

In School 4, a student reported, “I improved a lot in my personal habits;” and a parent “improved good living habits.” A parent mentioned that, “By learning the systems concerned, students formed better study habits, living habits, which promoted the physical health of students.”

In School 5, teachers told us that it was very, very rare to hear students using bad words, or to behave badly. A parent reported, “I changed my bad habits. If I found that my habits would do harm to my child, I would stop the bad habits.”

In School 6, a mother told us that, since the project started, her child formed the good habit of going to bed a bit earlier. Some students reportedly changed their bad habits. Students wrote, “Change[d] some of my bad habits. Persuade my classmates to change their bad habits according to my own experience” and “I asked myself to keep good sanitary habits, keep exercises every day. At the same time, I also encourage my friends to do so. I encouraged them to point out my bad habits and I will get rid of them.” Parents reported, “A lot of good changes happened in our family,” and “Diet and sanitation habits have been improved a lot and paid more attention to personal health

issues.” One parent reported that their child brought back the materials issued in the school, they compared what they do in their life with the suggestions in the materials, and they changed their bad habits. The parent said that now the family was paying more attention to improving their life quality.

In School 7, school administrators remarked that there was almost no fighting or quarrels in the school. Students improved their behaviors and became “more civilized.” Teachers mentioned that less and less students disobeyed the school’s regulations and rules, while before the project students’ behavior did not follow the standards. One teacher acknowledged that in the past he did not pay much attention to going to the dentist or other living habits; but after the project he did so. Students mentioned that since the implementation of this project, they cultivated better and more healthy living and study habits. For example, more students went to the school library to read books and broadened their insights. A student wrote, “After this project, I got rid of many bad habits and had more confidence about myself.” A father told us that his son made great achievements in the improving his own living habits and physical exercise.

In School 8, students and parents told us that they changed some bad habits. Previously, when students went off for playing or for a rest, they did some bullying, speaking dirty words, not very civilized. During implementation of this project, the teacher gave students a lot of education about their daily behavior, so the situation changed totally. One mother said that her husband drank much. Her daughter tried to persuade her father to stop this habit, but it was a bit difficult. Little by little, they were trying to handle this problem, and now the father had only one drink a day. Parents admitted that it was sometimes hard to follow when their child told them they should or

should not do something. Sometimes they did the right behavior when the child was present, but not when the child was away. However, they felt that by repeating the good behavior they formed some good habits; it was a process. One parent wrote, “Health Promotion School project not only promoted the students’ health, but also changed parents’ bad habits.” The children’s improved habits have become “automatic.” As one parent wrote, “We don’t need to tell him not to ride [a bicycle] any more and we don’t need to tell him that he should wash hands before eating.”

In School 9, since they had a deeper understanding of health, teachers, students and their family members were more willing to get rid of their bad habits—which, according to administrators, could be seen in the questionnaires and forums. For example, they developed good sanitation habits and very harmonious relationships. A teacher mentioned, “Owing to the establishment of the correct health concept, I can live and work healthily,” and a parent responded that, “etiquette education made her [daughter] understand how to be polite all the time and more civilized.”

Participants also increased their self-adjustment and adaptability. For example, one young female teacher told us that she used to get angry easily, because she worked very hard, and often she would get back home very late and felt a lot of pressure. There was no way for her to release this anxiety. However, after the school implemented this project, she learned more about self-control and tried to comfort herself. A student told us that in the past, when she had “mental problems”, she just stayed upset for some time, which was not very good for her study. After the project, she changed her ideas about health, and if she got problems again, she would turn to her teacher. As administrators mentioned, students were very active in adjusting their psychological problems. If they

really could not solve their problems by themselves, they started to learn to ask for help. A teacher also mentioned that one of the most positive outcomes was that “students improved their abilities in adaptability and handling with unexpected incidents. [They] know how to be grateful.” Teachers also improved their own adaptability and life. One teacher stated, “I am busy and fruitful. Working is beautiful, which is my target. I improved my ability in self adjusting.”

Eating more nutritiously

Participants also reported about changes in their eating habits.

In School 1, students refused to eat fried chicken because they were afraid of being overweight. In the past, parents told children at home not to eat fried food, but students only became obedient after the teacher gave instructions. A mother told us that she used to buy food that her child liked, but, after the project, she bought intentionally healthy food, even if it was not their favorite. Parents further reported that their child was not as picky with food anymore; their child initially did not eat tomatoes, but did so after the project; their child asked the mother to buy nutritious food; and they were putting less sugar into foods. Students said that parents and school told them that it was not good to eat sugar and sweets before going to bed, so now they try not to eat candies.

In School 4, before the project started, students preferred certain foods, but after the project they ate a more balanced diet. One granddaughter also changed the food preferences of her younger sister whose school did not have a health promotion project. Parents and children began to keep cooked food and raw food separate.

In School 5, one parent stated, “When I cook, I would balance the nutrition in food for my child.”

In School 6, school administrators informed us that students balanced their diets now even though economic growth would allow them to buy more meat and ignore the vegetables. More students had breakfast, and very few had fried noodles. Students told us that one improvement the project had made was the change in the students’ unhealthy habits. Before the project, many students just took some instant noodles or even did not take many meals. After the project, fewer students ate instant noodles. A father informed us that his child had a special preference about food, but after the project, his child paid more attention to a balanced diet. Parents also mentioned that after reading the materials that their child brought home, they put it into practice in their daily food and let their friends know about the importance of nutrition.

In School 8, school administrators told us that in the past some of the young teachers bought some fried food after school from the vendors. After the project, they stopped doing so because they realized that it was very unhealthy. In fact, the vendors moved away because students and teachers stopped buying from them. One of the school administrators said she ate only her favorite foods in the past and some foods she did not eat at all. After the project, she was reading health magazines and eating a more balanced diet. One of the students thought the project’s greatest achievement was the hygiene lecture, because after that more and more students stopped buying those “unqualified foods.” They learned that foods without any trademark, and without any production time, were not very good for their health. One parent mentioned making a list to pay more

attention to healthy food. Another parent wrote, “In diet, I have lighter taste and will have meat with vegetables.”

In School 9, a teacher told us that when he had dinner, he would eat more vegetables, instead of meat, and would prefer to cook without too many salts and too many oils.

Increasing safety behavior

Participants also increased their safety behavior.

In School 8, a teacher who owned a motor car, mentioned that he started to wear a helmet to set a good example. Students began to take a bus to go home, and those who lived close to the school walked together. Students wore yellow caps for safety, and teachers on duty escorted students to and from school. A child under the age of 12 stopped riding a bike to school and walked. A parent told us, “My kid likes taking bike. Now my kid will take the bike in the surrounding area of my family. My kid won’t ride the bike on the busy streets.” Parents mentioned that children did not take the three-wheeled vehicles without certificates after they learned that those were not safe. One little boy told us that in the past he rushed up and down the stairs very, very fast. After the project, he changed his behavior to go up on the right side, and slowly. Students reportedly used to chase and run after each other during class breaks, but after the project, they played games, and the teacher joined them. A father now wore a helmet after the child told him so, after a lecture by policemen. A parent mentioned, “When I go out, I won’t take any cars which don’t have the appropriate permits. And I will obey the traffic rules when I ride bike.”

Sustaining fewer injuries

Several school administrators reported reductions in injuries.

In School 7, there was a sharp reduction in the number of injuries. In 2003, before the implementation of this project, 41 cases of accidental injury happened. This represented 5.87 percent of students who were injured. After one year and a half, there were only 24 cases, which represented 2.43 percent. Thus, accidental injuries dropped about 41 percent. In addition, there had been no accidental injuries in sports matches for two years.

In School 8, cases of injuries also decreased. According to the principal: In 2003–2004, there were 1,439 students in the village and 129 students had an accidental injury, which represents 8.96%. In 2004–2005, there were 1,300 students in the village and 45 accidents, which represents 3.46%. This represents a decrease of almost 39%. Teachers confirmed that the cases of injuries had decreased, greatly. Teachers mentioned that while the insurance company had to pay a lot of money for claims in the past, during the year the school was implementing the HPS project, the insurance company had not paid any claims.

Improving parent-child communication

Children mentioned that they had better communication with their parents (and grandparents) and told them about health. In turn, several parents mentioned that they communicated more with their child.

In School 1, we learned that, as the *only child*, the children were at the center of their family. Grandfathers listened more than fathers. Grandfathers were more obedient to grandchildren and followed their advice. One parent said, since they had only one child, if the child gave good suggestions, they would follow. The child was the “little emperor.”

In School 4, a student mentioned that he or she strengthened the relationship between the school and family to have more communication. Parents told us that children taught their families, as this seemed to be most effective. For example, a granddaughter influenced her younger sister to eat a more balanced diet. Children persuaded their parents and grandparents to stop smoking.

In School 5, one parent reported sharing their own growing up experiences with their children and encouraging children to have stronger ability for handling difficulties, while another parent now communicated with the child rather than giving pressure. One mother said her child changed her: Before the project, she was very, very introverted. After the project, she was more open to talking about school issues in the family after her child initiated doing so. The mother was also more actively involved in school issues. One parent planned to “create more opportunities for child to do things by himself.”

In School 6, a father mentioned that he communicated more with his child and tried to understand his needs. Another parent explained that she tried to get her child to do more work in the house and spend less time on computer games. What one parent found helpful was to “communicate with child and encourage child to seek all-around development.”

In School 7, a mother mentioned that in the past, her daughter was not very good at academic study. She could not get very high scores. When the teachers and parents

emphasized this part of her campus life, she felt very depressed and would not communicate because she thought that there was not much to talk about that she could feel proud of. But since the implementation of the HPS project, the school had a lot of activities so her daughter had many chances to express her talents in different ways, besides academic study, and the daughter talked with her mother and her father about activities in school. This promoted their communications and relaxed the tension between the daughter and the parents. Another mother mentioned that the same thing happened to her daughter. In the past, her daughter also did not want to communicate with her parents. After the implementation of this project, however, her daughter learned more things about health and could participate in many activities. As a result, she had more things to talk about with her parents, and she became more active. The mother said that the teacher often called her to exchange opinions with the parents about the situation of their child. So she felt better and more relaxed. Her daughter also often called her parents to have more communication and to inform and update them on her situation in school. A father mentioned that his son did not listen to his parents before. After education of the school and the teachers, now they could negotiate and “made communications.”

My colleague from WHO summarized his impressions of this school’s improved communication: “The information you have given us is very, very valuable. And I think one of the most important things that I have heard today is how the school is helping parents and students to communicate together. Good communication between parents and students is very important for a good sense of well being, for parents, and for students. And just like the sun rises every morning, tension rises between parents and the students when students become adolescents. So if this school is helping to reduce that tension

between parents and their adolescents, it is a *very* Health-Promoting School. And I thank you for helping us to understand how the school is contributing to this part of health. Thank you.”

In School 8, a parent told us that, after this project started, her child wanted to share some experiences and talk about the new things that happened in school. Thus, the project promoted communication between child and parents. When the child knew some new things from school, like about chicken flu, cholera, or some prevention of disease, he would go home and share those experiences with parents. Some of the parents did not know it by themselves because they were focusing on their work, so they learned it from their children. A parent wrote, “The relationship between the school and us is much closer.”

In School 9, parents told us that their children improved communication with classmates and with parents. For example, a child, who in elementary school did not like to communicate with other schoolmates and who did not have many friends, became more open and more sociable after he entered the school. The parent mentioned that at home there were even more phone calls for the child, which meant that he made some friends. Another parent told us that their son did not build very sound relationships with other students when he entered this school. A teacher wrote at the end of the semester that this child was not very easygoing and a little lonely. After the project, the child changed a lot, became more sociable and open, and was able to form “harmonious” relationships with other children.

Communication between parents and children also improved. A parent told us that now they had more communication with their child and with the school, “which is a very

good cycle.” One parent wrote, “Easier to communicate with my child, more understanding about health. The reason: because of the detailed measures taken by the school for the Health Promotion School Project.” A parent mentioned that their daughter became more sociable and talked more with her parents when she came home from school. Another parent told us that, before the HPS project, his son never said Hello to his parents voluntarily. After the project, he started to say, “I’m back, Dad,” when he comes home, and when he goes out for something, he tells his parents where he is going. When he comes home, he even shares with his parents some experience of what happened in school. A mother told us that in the past, when her child came home, she would try to ask him some questions in order to communicate. Whenever the mother asked what was the happiest thing in school today or what was the unhappiest thing in school, there was only one answer: No. After the project, the child became more talkative and would actually share some experience with the mother, such as what was funniest, what was interesting, and who was the best in class.

The next chapter summarizes the processes, interventions, challenges, and self-reported changes that emerged from the data and points to unique and unexpected findings.

Chapter 8. Grounded Theory Analysis of the Implementation Process

This part of the analysis summarizes the processes, interventions, challenges, and self-reported changes that emerged from the data in response to the research questions, using a Grounded Theory approach. At the end of this section, Figure 6 (page 329) summarizes these processes, interventions, challenges, and self-reported changes. This section also highlights some of the unique and unexpected findings that emerged from the data about the process of implementing the HPS project in Zhejiang Province and that might be of use for developing Health-Promoting Schools in other countries. In contrast to this data-driven part of the analysis, the following chapter will analyze the extent to which these processes were coherent with current theory, driven by pre-existing frameworks.

What are the key processes through which schools in Zhejiang Province become Health-Promoting Schools?

Pre-implementation activities

The *process* of establishing Health-Promoting Schools includes several steps. It starts with *gaining leadership support*, ideally also financial support, especially from the education and health bureaus at the provincial, city, and municipal levels. *Motivation* may come from many factors, including striving for a prize or for fame or from the

governmental requirement for quality education and all-around development. One of the first steps is *learning the HPS concept*. This may be done by engaging in special training workshops or reading materials from CDC or WHO. When one or more people from a school know the HPS concept, they spread it throughout the school and to families through blackboards, newsletters, meetings, publicity, and launching ceremonies.

Schools have different mechanisms for *choosing an entry point* or health topic on which the Health-Promoting School will initially focus. In most cases, they consider various factors related to experience, perception, and survey data. (They may not utilize the WHO-required surveys for choosing their entry points.) Schools *set up a special HPS planning committee*, led by the principal of the school, joined by additional administrators and teachers who are in key roles in the school. The committee may also include students, parents, and community members and may receive guidance from CDC. This committee makes policy, and the members develop and implement a *work plan* for each semester. The plan integrates HPS activities into the school's regular work or practical situation and includes additional activities that address the chosen health topic(s). One of the first steps in implementing the work plan is *setting up policies and systems*. This may include establishing or improving management systems, hygiene and sanitation requirements, no-smoking regulations, and behavior guidelines. Some schools make HPS policies and post them on their school walls.

Implementation activities

Rules and obedience guide many of the actions of participants. *Start-up or mobilization meetings* launch the HPS project and advocate for it. Schools put *priority on*

health, and a concept of “Health is First” may run through all school activities so that health is in the daily pursuit of the school. Communication plays a key role in *popularizing the HPS concept* through specially issued materials, publicity windows, blackboards, posters, bulletins, publicity to families and the surrounding community and other means. *Cooperation with other governmental departments* such as traffic and fire departments, environmental protection, and public security can help to join efforts and co-work. *Ensuring community cooperation and participation* is very important because Health-Promoting Schools are a co-responsibility of school, family, community, and government. *Obtaining input from students and parents* can help improve the HPS project by, for example, making sure students learn the information first before they are asked to pass it on to family and community, or by seeking more support for the HPS project from the media. *Being a role model* is one way to participate. Headmasters can be role models of healthy behavior for their staff, and teachers and parents can be role models by setting good examples that children can follow. *Interventions may be chosen* by following the requirements and plan of the project and by considering what is helpful for students’ development.

Training is an important component and may include a special HPS training workshop with national and international experts; teacher training or self-study; training by professionals such as doctors, nutritionists and psychologists, and experts from provincial and municipal CDC, health and education institutions. Some teachers may take examinations as school psychologist. *Study visits* to schools that already have experience as Health-Promoting Schools can be part of the training. *Utilizing the Internet* can also be one source of information, for teachers as well as students.

Teachers have various reasons for *choosing class topics* such as health topics related to the chosen entry point (prevalent health issue), to the developmental period of students, or to the practical condition of the school. Teachers use *new teaching and learning methods* that include less lecturing but more actively involve students in projects and skill building for communication, negotiation, persuasion, research, interpersonal, and other skills. These methods include *teaching social skills and life skills*, including gaining confidence for job hunting, doing housework, and health self-management. Some schools use *new textbooks and materials* that are available or purposely develop additional materials themselves, utilizing materials developed by teachers. For example, schools might develop a health education textbook or handbook about health with various health topics, including psychological health. Teachers of various subjects can use these books and materials to integrate health content in their classes.

Monitoring and evaluation

Evaluation might include process, baseline, and follow-up evaluation. Schools may carry out extensive *process evaluations* such as extensive filing systems with plans, pictures, teaching materials handed in by teachers, and other relevant documents. Schools may use the international ISO9000 Quality Monitoring System, and they may regularly evaluate and rate students' behavior. Some schools have procedures for obtaining feedback and appraisals from students, teachers, and parents. Schools may *conduct baseline and final evaluations* that are part of a prescribed program—such as this project, which used WHO and nationally developed survey instruments to gather baseline and follow-up data in selected schools. It may take time until local agencies analyze the data

and return it to the school. Schools also conduct their own surveys about various health issues such as injuries or nutrition, and teachers may visit children's homes to do an investigation. At *baseline*, participants may know little about health, hygiene, and injury prevention, and experience high levels of stress and psychological problems and low levels of confidence and satisfaction. At *final evaluation*, participants may find the HPS project necessary, successful, effective, practical, and beneficial. A Health-Promoting School can help participants gain more knowledge about health, gain confidence, improve their physical and psychological health, improve the "hardware" (facilities of the school) and the "software" (e.g., relationships and caring between teachers, students, and parents), improve security, actively engage in their work and study, and focus on all-around development not only academic achievement. In some schools *standards of evaluation change* to a broader focus as teachers pay more attention not only to students' academic results but also to students' development in all aspects, including physical and psychological health.

What interventions have schools in Zhejiang Province implemented to become Health-Promoting Schools?

Health-Promoting Schools implement a *variety of activities* aiming at all-around influence for overall development of students and their families.

Classroom-based activities

Teachers *integrate health into regular teaching* in various creative ways by purposely putting health into their class design and relating the HPS project to their teaching in Chinese and English language, biology, physical education, sociology, mathematics, cooking instruction. *Health-specific class meetings* serve for the dissemination of knowledge about health, including psychological health, and may include interactive activities, videos, and professionals from health or traffic or other departments to give lectures. Some schools have special health education classes. Teachers may give *individualized instruction and care* to help students pursue a healthy lifestyle. For example, teachers may give individual advice to students about healthy eating, hygiene, or self-control and may give financial support or individualized tutoring to students in need.

School-wide activities

Extracurricular activities may include morning or evening meetings about health topics, or a discussion before dismissal about how the day went. Schools create *wallboards and bulletins* and propaganda windows to disseminate knowledge about health. Students participate in designing blackboards about health knowledge. *Various competitions* for writing, calligraphy, knowledge, and behavior related to health topics encourage students, for example, to write articles about health and development, and to behave well so as to become “model students.” Student “health ambassadors,” which then become key persons for the HPS project, might be chosen in a competition. A *signature activity* can commit students not to smoke or to stick to the rules. *Arts days and other*

festivals provide opportunities for students—and teachers—to bring out their talents. Schools also offer *psychological consultation* by specially trained staff, often in a room that is specially set aside and decorated in pleasing colors. Schools may also offer hotlines or special mailboxes where students can share their concerns, and may offer group and individual consulting for students, parents, and teachers. Teachers may analyze the root cause of psychological problems of their students so they can treat the student appropriately and solve the problem. Schools arrange or offer *physical examinations and health services* such as annual health check-ups for students and teachers on school grounds or in nearby hospitals, and services for the prevention and treatment of common and infectious diseases. They document results and deliver them to parents, together with suggestions. Schools may also *check students' appearance* such as fingernails, personal hygiene, and daily behavior. Schools offer opportunities for a variety of *physical exercises*, including PE classes, outdoor sports, matches of various kinds, military training (concentrated physical activity that requires discipline), and morning exercises or running. Some schools have a *school radio station* that broadcasts health messages or psychological programs at specific times. Schools may provide *nutritious food* and balanced fixed meals, sometimes with the help of a nutritionist, and under strict hygiene control in the dining hall. *Safety measures* may include teachers highlighting safety before children go home for the weekend, policemen controlling traffic in front of the school, students wearing yellow safety caps, and teachers escorting students home or arranging a bus service. Some schools may form *unique student groups* such as four-student groups in which advanced, normal, and slower students support and care for each

other or a companion education association in which students care for and educate themselves.

Outreach activities

Schools *disseminate information to parents*. This may include printed guidance about nutrition and other health topics, letters to parents, and information passed on by children to their parents. Schools may also have parents' meetings or parents' school to educate about health and parenting and to gather feedback. Teachers may call parents regularly, especially those whose child lives in a dormitory, to report on their child's condition. Schools also *disseminate to communities* knowledge about health, for example by students going into the community to do publicity about health promotion. Students and teachers may also *conduct social research*. For example, students may conduct surveys in the community or in companies, and teachers may conduct research on issues such as encouraging students to ask more questions. Schools may offer opportunities for *engaging in social practice* so that children, for instance, can gain deeper appreciation of their parents' care and learn to take care of themselves and of those in need.

School environment

The school *environment* may be modified in various ways. For the "hardware" or physical school environment, schools *improve facilities*. Schools may improve or reconstruct their dining hall, construct a multimedia classroom, improve sanitation facilities, dormitory buildings, sports facilities, playground, and classrooms and ensure

they meet security and sanitation standards. *Enhanced cleanliness and beautification* may include dormitory beautification competitions for excellent dormitories in regard to health and hygiene, a green school environment, regular clean-up activities, purified water, rules for classroom decorations, and a sense of environmental protection. Schools ban smoking and become non-smoking schools. For the “software” or *psycho-social school environment*, schools create a harmonious atmosphere and have good relationships between students, teachers, and the leadership of the schools. Teachers and students become like friends. Teachers help students gain self-confidence and create a harmonious learning environment. *Maintaining a caring atmosphere* may include treating students equally, regardless of their academic record, and teachers truly caring about individuals and their well-being.

What are the major challenges that these schools need to overcome?

Understanding and integrating the HPS concept

Schools may face a number of *challenges*. There might be a concern about *balancing academic studies and health interventions*, particularly in a competitive society where parents are concerned that addressing health interventions might distract students from focusing on their academic studies. Some people might also be concerned about *coping with an increased workload* for administrators and teachers that this project adds on. *Understanding the concept of a Health-Promoting School* can also be a challenge, particularly for parents, and particularly at the beginning of the program. There might be a *need for motivation and courage* especially for students to see the benefits of health

education and to develop self-control. It also *requires time to change habits*, so health promotion needs to be a long-term goal. Some students might *resist project rules* and be passive, rebellious, or not obey school rules. *Health and environmental problems* may include students being fragile, not confident, having eyesight problems, or living in a countryside with poor sanitation or in a city with fast food eateries. *Relationships with parents* might be a challenge if there is a lack of communication between school and parents or between children and parents, or if parents ignore their child's talk about health promotion. There might also be a lack of *communication between teachers and students*. There is a challenge of *extending health promotion to the community and family* especially if people do not want to accept advice, for example, smokers, or if there are not enough events for participation of communities and families. It might be challenging to reach communities if the school is located in a suburb and students come from various towns and thus parents do not live locally. Another very prevalent concern is a need for *sustaining and expanding health promotion efforts*. Participants express that more schools in the neighborhood, the whole society, or the whole nation should benefit from the HPS project; it is not sufficient to rely only on a few schools.

Lack of professional development and support

A need to expand knowledge, skills, and experience about health promotion and Health-Promoting Schools is a very prevalent challenge as is *request of technical support*. Participants may ask for support and guidance from WHO and provincial or municipal CDC to share advanced materials and examples and to provide opportunities to visit schools that have advanced experience. Some schools *lack qualified staff* for health

promotion, especially for psychological assistance, or may need more teacher training to improve teachers' quality. Schools may also perceive a *need for governmental support*, especially from departments of health and education and from supervising departments when their expressed needs are not appropriately considered or addressed. *Lacking funds and facilities* is also a prevalent challenge. Funds may be needed for facilities, nutritious food, personnel, teaching resources, and publicity.

Encountering no challenges to implementation

Some participants may see *no challenges*.

What self-reported changes begin to take place in the lives of individuals during the implementation process?

Individuals report changes in their attitudes, knowledge, and behavior associated with Health-Promoting Schools.

Attitude changes

Attitude changes for many participants include *paying more attention to health*. For example, people realize the importance of nutrition and of healthy surroundings, the danger of smoking, the importance of hygiene and safety, and develop health consciousness, including attention to psychological health. Students (and staff) *attain better psychological quality and confidence*. This may include the ability to handle difficulties, more confidence, becoming more communicative, and improving emotional

and self-control. This can contribute to richer lives, increased motivation to study, and more enjoyment. School administrators may “put themselves in others’ shoes” first to better understand others’ behavior. Some schools may experience *friendships between teachers and students*. Students may turn to teachers for help if they have problems, and treat teachers “like friends.” Teachers may feel valued, like a “big brother,” and experience more satisfaction with their work. This is unusual in China, where teachers are traditionally responsible for teaching and disciplining students, and schools and the society expect students to focus on their studies. These developments may make parents *more relaxed* because they gain confidence that the school is taking good care of their children, that the school provides safe and harmonious surroundings, and that their child is improving his or her self-control and psychological quality.

Knowledge and concept changes

Health-related knowledge may include increased knowledge about nutrition, hygiene, safety and security, the harm of tobacco, how to avoid injuries, and psychological knowledge such as how to relieve anxiety and what is normal and abnormal. A knowledge transfer occurs from children to parents. Participants also develop a *broadier concept of health* that includes not only physical health, but also psychological and social health. An *understanding of the HPS concept* develops over time. It may include a gaining of knowledge and understanding of different components for different participants. Actively involved school administrators may develop the most complex understanding of the HPS concept, followed by teachers, and students and parents might develop a less complex understanding.

Behavior changes

Behavior changes include more *active participation* in the project. Students and parents may actively participate in activities such as publicizing health knowledge to neighbors and friends, and taking part in school events. Some participants *increase their physical activity*, and do more physical exercise such as utilizing the school playground or walking to school rather than taking the bus. Students also *improve sanitary habits* such as not throwing litter on the ground, and paying attention to personal hygiene such as brushing teeth twice a day, washing hands before and after dinner and after using the toilet, cutting their nails regularly, and washing their clothes. Many teachers and parents *reduce or quit smoking*. Some children persuade their fathers and grandfathers successfully to reduce or quit smoking. Administrators and staff quit smoking or do not smoke on school grounds, especially if the school establishes no-smoking rules. Participants also *change bad habits* and develop good habits. This can include a variety of habits, such as not using bad words, keeping good sanitary habits, paying attention to personal health issues, displaying civilized behaviors, improving living habits, self-adjustment and adaptability. Students may persuade their classmates and friends to change their habits. Participants also make *eat more nutritiously* such as not eating fried food, intentionally buying healthy food, and balancing their diets rather than having special food preferences. Vendors who sold unqualified foods outside the school may move away because students and teachers stop buying from them. *Increased safety behaviors* may include students wearing yellow safety hats and walking together, not taking vehicles without certificates, wearing safety helmet, and obeying traffic rules

when riding a bike. Consequently, accidental *injuries decrease* significantly. *Parent-child communication* improves. As the only child, children in China are at the center of their family, and children can teach their parents and grandparents about healthy behaviors. In turn, parents may have more communication with their child and share their own growing up experiences. Children with lower academic scores may get more communicative with parents after they get to express their talents at school in different ways. Health-Promoting Schools can help parents and students to communicate with each other, and children may become more sociable and share new experiences that happened in school with their parents.

Figure 6. Summary of descriptive results

THE PROCESS

Pre-Implementation Activities

- Gaining leadership support

Getting leaders to pay attention” or give priority to HPS project

Obtaining financial support

- Being motivated

Anticipating fame and prizes

Supporting the government-mandated quality education for students’ “all-around development” and to move the society forward

- Learning the HPS concept

School administrators and teachers learning from CDC, training workshop, materials

Students learning from headmaster, teachers, school publicity

Parents learning from students

- Choosing an entry point

Perceiving that a specific health issue is important to address

Conducting observations, referring to government and school surveys

Already having a “good foundation” in addressing certain health issues

- Setting up a special HPS Committee

Designating principal as the leader in charge of the committee

Including teachers and school staff, according to their regular area of work

Including students, parents, community members, and others in some committees

Committee making rules and regulations and ensuring project implementation

- Developing a work plan

Integrating HPS into school’s “regular work” and actual conditions

Planning activities for each month

- Setting up policies and systems

Improving existing rules and policies

Developing and publicizing specific HPS regulations, rules and systems

Setting up regulations for smoke-free schools

Implementation Activities

- Being guided by rules and obedience

Obedying HPS rules

- Holding a start-up meeting

Holding mobilization meeting for the HPS project

- Prioritizing “Health is First”

Putting priority on health

- Popularizing the HPS concept

Communicating the HPS concept widely among teachers, students, communities

- Cooperating with governmental departments

Cooperating collaboratively with various governmental departments

- Ensuring community cooperation and participation

Viewing health promotion as a co-responsibility of school, family, community, government

- Obtaining input from students, parents, and teachers

Giving students, parents, and teachers opportunities for input and suggestions

- Being a role model

Having headmasters, teachers, and parents as role models for healthy behaviors

- Choosing interventions

Choosing interventions according to plan, requirements, or students’ characteristics

- Providing training

Participating in initial orientation workshop on HPS concept and plan

Arranging school-based trainings by CDC, health department, hospital staff, and other experts

Engaging in self-study, especially for psychological certification

- Conducting study visits

Visiting other Health-Promoting Schools to learn from their experiences

- Utilizing the Internet

Utilizing the Internet as a source of information and for sharing

- Choosing class topics

Choosing topics for a variety of reasons, including conditions in their city, students’ input, students’ development and “practical condition”

- Using new teaching and learning methods

Starting to use participatory, interactive, democratic teaching methods

- Teaching social skills and life skills

Teaching social skills, including skills for career development and housework

- New textbooks and materials

Utilizing or creating new textbooks and materials or making modifications to existing ones

Monitoring and Evaluation

- Carrying out process evaluation

Carrying out various assessments for record-keeping of activities, teacher appraisal, students' activities and behavior, and school management

- Conducting baseline, mid-term and final evaluation

Conducting pre- and post-assessment

Documenting the many aspects in which the HPS project can make a difference

- Changing standards of evaluation

Making health and holistic development of students part of the goals and evaluation standards



THE INTERVENTIONS

- Implementing a variety of activities

Implementing a wide variety of activities with the goal to develop students in an "all-around" way

Classroom-based activities

- Integrating health in regular teaching

Integrating teaching about health purposely into regular teaching in various subjects

- Holding health-specific class meetings

Holding class meetings for the dissemination of knowledge about health on various topics

- Providing individualized instruction and care

Giving individual attention to students who need extra help or care

School-wide activities

- Adding extracurricular activities

Adding supplemental activities such as morning and evening meetings and class time for deep discussion

- Creating wallboards and bulletins

Creating wallboards and other displays to disseminate knowledge about health

- Holding competitions

Holding various drawing and writing competitions about health-related subjects, as well as behavior competitions to select "model students"

- Sponsoring signature activities

Sponsoring signature activities through which students show their commitment (e.g., not to smoke)

- Launching arts days and other festivals

Launching arts days, evening festivals, commemoration days to give students a chance to display their talents

- Providing psychological consultation and care

Providing counseling, hotlines, and special mailboxes

Analyzing situations of individual students who have mental health issues and working out individualized solutions

- Offering physical examinations and health services

Offering annual health check-ups, prevention and treatment services for students and teachers

- Checking students' appearance

Checking students' appearance, hygiene, and behavior

- Encouraging physical exercises

Requiring morning exercises or running

Holding various sports matches and physical education

- Broadcasting through school radio station

Broadcasting health topics through school radio stations

- Providing nutritious food

Providing balanced, nutritious meals, and more variety

- Instituting safety measures

Instituting talks about safety before children go home

Giving children yellow caps to walk to and from school

Ensuring that children get home safely

Regulating traffic outside of school gate by a policeman

- Forming unique student groups

Forming unique student groups in which students help along each other

Outreach

- Disseminating to parents

Disseminating information to parents, through children

Holding parents' meetings

Having teachers visit, call, and write letters to parents

- Disseminating to communities

Students going into the communities to disseminate information

- Conducting social research

Conducting surveys and research among the community

- Engaging in social practice

Engaging in practical projects such as children living on farms and working in shops to help them gain appreciation for their parents and for hard work

Reaching out to those in need

School Environment

- Improving facilities

Improving facilities, such as dining rooms, dormitories, teaching and sports facilities, playground, sanitation

- Enhancing cleanliness and beautification

Enhancing cleanliness and sanitary conditions

Holding "beautification" projects

Paying attention to environmental protection

- Assuring harmonious psycho-social school environment

Assuring a harmonious atmosphere

Establishing good relationships between teachers, students and school authority
Encouraging students and teachers to become “like friends”

- Maintaining a caring atmosphere

Fostering “equal relationships” between students and teachers

Maintaining an atmosphere where teachers, students, and parents truly care about each other’s well-being



THE CHALLENGES

Understanding and integrating the HPS concept

- Balancing academics and health interventions

Especially parents being concerned that focusing on health promotion takes away valuable time from studying and from focusing on academic achievement

- Coping with increased workload for administrators and teachers

Some administrators and teachers feeling this project added extra work, but was worthwhile

- Understanding the concept of a Health-Promoting School

Some staff, students, and parents finding it difficult to understand and accept the HPS concept

- Needing motivation and courage

Some students lacking motivation or self-control, or being embarrassed to ask for help

- Requiring time to change habits

Health promotion being a long-term project

Changing bad habits takes time

- Resisting project rules

Some students not obeying by project regulations and activities

- Addressing health and environmental problems

Some children being fragile or having eye problems

Some areas not having a drainage system and others having fast food restaurants

- Improving relationships between schools and parents

Some schools not having good relationships and communication between school and parents

- Strengthening communication between teachers and students

One school reporting a lack of communication between teachers and students

- Extending health promotion to the community and family

Some communities and families being hard to reach

Some family and community members not wanting to accept advice

- Sustaining and expanding health promotion efforts

Participants asking for further expansion of the HPS project across China and in other countries

Lack of professional development and support

- Needing to expand knowledge, skills, and experience about health promotion

Needing knowledge, skills, methods, theoretical guidance, and experience of health promotion

- Requiring technical support

Requiring instructions and guidance from WHO and other experts

- Lacking qualified staff

Lacking qualified staff for health promotion and to provide psychological assistance

- Needing governmental support

Needing more support and concern especially from the departments of education and health and other supervising departments

- Lacking funds and facilities

Lacking funds and resources, and in some cases a lacking facilities



THE SELF-REPORTED CHANGES

Attitude changes

- Paying more attention to health

Realizing the importance of health and paying more attention to health

- Attaining better “psychological quality” and confidence

Students, and some staff, improving their psychological qualities, including their ability to handle difficulties, and increasing their confidence

- Forming friendships between teachers and students

Teachers becoming like friends of students

- Feeling more relaxed

Parents, some students and administrators, feeling more relaxed

Knowledge and conceptual changes

- Increasing knowledge about health issues

Participants increasing their knowledge about health, nutrition, hygiene, safety and security, the harm of tobacco, how to avoid injuries, and psychological knowledge

- Developing a broader concept of health

Participants realizing that health is a broader concept that includes physical, mental and social health

- Gaining a better understanding about the HPS concept

Participants expressing a very comprehensive understanding of the components and concept of a Health-Promoting School

Behavior changes

- Actively participating in the project

Students and parents actively participating in the project, spreading

knowledge and forming good habits

- Increasing physical activity

Some participants increasing their physical activity

- Improving sanitary habits

Students decreasing littering and improving their hygiene habits, such as hand washing and brushing teeth

- Reducing or quitting smoking

Many teachers, fathers and grandfathers reducing or quitting smoking

- Changing various bad habits

Many participants changing their bad habits such as sanitary and other living habits, and persuading others to change their bad habits, too

- Eating more nutritiously

Students and their families changing to a more balanced diet, less fried food, more vegetables, etc.

- Increasing safety behavior

Students wearing yellow safety caps and walking together, not taking bicycles or vehicles without certificates to school

Parents and teachers wearing safety helmets

- Sustaining less injuries

Injuries in two schools dropping by about 40 percent

- Improving parent-child communication

Children having better communication with their parents

Parents communicating more with their child

What can be learned from these processes that may be of use to school systems in other developing nations?

This section highlights some of the unique and unexpected findings of this study.

They include an understanding of the broad concept of health and Health-Promoting Schools, understanding the relationship between study and health, utilizing a truly comprehensive approach consistent with the government-mandated quality education, putting priority on health and treating it as a co-responsibility, children educating their parents and serving as change agents, and receiving leadership support. In contrast to

what would be expected from the traditional educational system in China, this study showed teachers using participatory teaching and learning strategies and students working together instead of competing. In accordance with the educational system and culture in China, participants strove to achieve harmony (which is usually not part of WHO's health promotion vocabulary), demonstrated concern for others, and exhibited a sense school connectedness. Evaluation results "confirmed" the effectiveness of HPS and a change to holistic assessment but also pointed to a need for more training and technical support.

Understanding the broad concept of health and HPS

The apparently increased level of understanding of a broad concept of health and of the HPS concept—that is based on an understanding of a broad concept of health—might be one of the project's most important achievements.

Since we could not gather data in the same schools during subsequent visits, we cannot say with certainty from these data that the level of understanding has improved in any particular school. However, the findings clearly indicate that, during the first round of data collection, participants' level of understanding of the health concept was less well developed. For example, during the first round of data collection, some parents and children were reluctant to answer when asked to describe a Health-Promoting School. During the second round of data collection, however, participants' responses demonstrated a much deeper and more detailed understanding of the nature and scope of Health-Promoting Schools than the earlier interviews. For example, a school administrator in School 6 defined six features of Health-Promoting Schools and thus

demonstrated a good understanding of the components of Health-Promoting Schools as well as an understanding of health in a broad sense. Participants' responses during the third round of data collection also revealed a similarly detailed concept of health and Health-Promoting Schools. Respondents reported repeatedly that their concept of health changed during the implementation of this project from a narrow focus on physical health to a broader focus that included social and psychological health. For example, in the three schools that we visited during the third round of data collection, we heard many times in detail that their concept of health had changed to a broader concept of health.

This implies that the level of understanding of a broad concept of health grew profoundly in project schools during the implementation period.

Understanding the relationship between study and health

This study also showed that participants learned to understand the relationship between study and health and the importance of balancing the two.

Before the HPS project, schools focused on academic education only; after the project, they focused on both. The dual-focus appears to have provided a positive learning experience, given the extent to which participants and interviewees raised this issue. For example, the principal of School 6 described that one part of the HPS concept was "to improve students' state to study and teachers' work efficiency." This showed that participants viewed the HPS concept as contributing to achieve the education sector's goals of improving students' studies and teachers' work. A teacher in School 9 thought that the biggest change of this project was the concept change. Before the project, the school paid more attention to virtue education, school construction, and improving

academic results. After the project's implementation, the school jointly targeted students' psychological condition and health, as well as academic study. Students realized that their mental condition had a tight connection to their studies. A student noted that "physical health and psychological health will promote the study efficiency," and another student mentioned that, "studying with relaxing in between could increase study efficiency." A mother mentioned during the interview that the HPS project would address both the development of students' academic education and their physical and psychological health.

Thus, participants recognized the link between health and education and understood the relationship between improving health and improving educational goals and efficiency.

Implementing a comprehensive approach

Schools used a truly comprehensive approach that addressed various health topics, utilized all components of the HPS model, and focused on holistic development of students.

Schools addressed not only the health issue that they had chosen as entry point, but all the schools in this study addressed various health issues. In most cases, this included tobacco control, nutrition, exercise, psychological health, hygiene, as well as other prevalent health issues such as injuries or SARS.

Schools also implemented virtually all components of a Health-Promoting School, including changes to school policies, school physical and psycho-social environment, health education, health services, nutrition services, physical exercise, psychological

consultation, outreach to families and communities. For example, the deputy headmaster of School 7 remarked that their understanding of health became more comprehensive and, consequently, their ideas and interventions also became more comprehensive. The variety of activities that schools reported was a good example of the understanding and application of a comprehensive approach to health, as called for by the HPS concept.

Furthermore, schools started to focus on holistic, or “all-around development” of students, not just academics. This was supportive of the approach to quality education called for by the Chinese government. For example, in School 9, a teacher thought that the greatest achievement of this project was that after the project the teacher did not just focus on academic learning but cared for the students in all aspects.

Thus, implementing HPS was a comprehensive approach in many aspects: addressing various health topics, implementing a wide range of interventions, and addressing holistic development of students. This was supportive of the government-mandated approach to quality education.

Putting priority on health and treating it as a co-responsibility

Schools put top priority on health, which was signified in the “Health is First” concept, and it was seen as a co-responsibility.

For example, the leading group of School 5 promised publicly that the school emphasized the concept “health first” in running the school. The concept of “health is first” was running through all activities and was also a major intervention itself. In School 9, the principal also put “health is a priority” as a schooling principle.

Administrators and staff treated health education as a priority of their daily work and viewed this as a systemic project.

Schools viewed the HPS concept as part of the overall responsibility of the school rather than an extra task to be carried out, and parents recognized that they shared co-responsibility with the school to promote health. Parents mentioned that they cooperated with the school, directing their child to establish good dieting, sanitary, and exercising habits. For example, in School 8, a mother mentioned that she used to think that once she gave her child to school, it was the teacher's responsibility to take care of her child. She came to realize that it was a co-responsibility of teachers and parents. A teacher remarked that one of the helpful aspects of this project was "the joint effort by all the members in the community, where is the source of social power." In School 9, a father thought that the HPS project was not only the responsibility of the school, but a co-responsibility of the school, family, community, as well as government.

This showed that the HPS effort generated a highly holistic approach to health in its broad sense and made health a priority and co-responsibility for the entire school community.

Engaging children in educating parents and serving as change agents

Children passed on health information to their parents, many of whom had lower education, and thus children were often effective teachers of their parents and initiators of attitude and behavior changes.

For example, in School 5, children introduced some health knowledge when they talked with their parents. In School 7, when the students went home during their summer

or winter vacation, the school asked them to explain the contents of the students' handbook, with basic knowledge about health, to their parents. In School 8, one mother thought that the students could serve as a bridge to spread knowledge, and when children said something, the adults would pay more attention to it. This was considered better than adults spreading the knowledge to each other.

In India, children have also been health promoters. A recent article reports, "The school children, who are the first generation to be educated, became the agents of change. Their role was to promote healthy behaviours amongst younger children, children of same age, their immediate families and larger community" (Mukhopadhyay & Bhatnagar, 2005, p. 148).

Thus, HPS projects can give children an opportunity to be effective change agents, especially in developing countries and among a parents' generation with low levels of education where children can contribute to reducing the education and health gap.

Benefiting from leadership support

Many of the participants mentioned the support from government officials and school leadership for the HPS project. This included conceptual and political support, and in many cases also financial support. Leadership support, which is one of the factors of the Change Framework described in Chapter 1, is a key factor in changing policies and practices.

However, during the interviews, participants also expressed a need for more political and financial support. This is somewhat inconsistent with the findings of

leadership support mentioned above. Part of this might have had to do with the situation in that people felt the interview—in which CDC and WHO staff were present or participated—was a good opportunity to raise a voice for more support, since resources for education and health never seem to be enough.

Using participatory teaching and learning strategies

Participants reported a significant change in teaching and learning strategies, transitioning from a banking model of education to interactive pedagogy.

As mentioned in the Programmatic Introduction to this study (Chapter 2), the Chinese educational system traditionally expects students to be passive and not to question their teacher. In some instances, this approach was beneficial for the HPS project, as leaders just had to tell students and other participants what is healthy and to comply.

However, we also heard about changes that seemed revolutionary. Schools introduced questioning and democratic practices and encouraged students to express their opinions and to talk rather than only listen to others. This is contrary to the passive Chinese educational system described in the *World Education Encyclopedia* (Marlow-Ferguson & Lopez, 2002).

For example, we learned in School 6 that before the HPS project, students just followed, but after the project they were actively involved. In School 7, the atmosphere in class was also not active before the HPS project started, but once teachers started using more interactive methods, students reportedly showed much more satisfaction, found the classes not boring anymore, and were eager to learn from each other and to help each

other. In School 9, before the HPS project, students were passive when they had questions. After the project, they raised their questions actively and explored how to solve them.

Thus, the HPS project, at least in some instances, transformed a passive educational system into an active and participative one.

Students working together instead of competing

As reviewed in Chapter 1, and heard many times during the interviews, the educational system in China is very competitive and there is fierce pressure to succeed. Therefore, some changes during the HPS project were remarkable in helping students to work together and to help each other rather than compete against each other.

For example, the four-student groups in School 5 included advanced students, normal students, and slower students, who supported each other and helped each other along, so that even slower students could succeed at the end of the semester. In School 9, a girl in the neighborhood, who initially did not want to help others, eventually started to share.

Thus, the HPS project also transformed some aspects of the educational system in China from a competitive one to a cooperative one.

Striving for harmony

Many times participants used the terms “harmony” and “harmonious relationships.”

For example, in School 2, students said that they lived in harmony with fellow students, teachers, and authority. School 6 created a harmonious atmosphere and had a good relationship between students, teachers, and leadership of the schools, as administrators told us. One of the administrators of School 9 thought that the harmonious relationship among students was one of the most important outcomes of this project.

WHO does not normally use the term “harmony” in promoting school health, though it might be implied. In fact, the document in the WHO Information Series on School Health, *Creating an Environment for Emotional and Social Well-Being*, which contains the PSE that was used as part of the quantitative evaluation in this project, does not mention the words “harmony” or “harmonious.”

Thus, participants in this project introduced the term “harmony” that other countries might use to promote mental health in schools.

Expressing concern for others

Parents and teachers often expressed their concern for others, not themselves, and spoke about other groups, rather than about themselves.

Often, parents would talk about teachers or children, or teachers would talk about children rather than about themselves. For example, the mother that came to the interview in School 2 expressed concern about the extra time the principal had to spend to get this project started.

In addition, participants expressed a need for expanding HPS to the whole society and nation, and not just to one school in the neighborhood. On the other hand, parents

also reported that they learned from their children and that one of the great differences that the project made was reaching beyond the school campus. This showed consideration for society as a whole, not just for participants or schools themselves.

This seems to be a good manifestation of the value Chinese people place on society as a whole, as noted in Chapter 1.

Improving school connectedness

Students became more connected to school through improved relationships with teachers.

During the HPS project, many participants reported that the relationship between students and teachers improved, teachers and students became like friends, and students preferred to stay in school rather than going home. Furthermore, teachers were personally involved in their students' lives such as analyzing the psychological situation of individual students to intervene with an individualized approach, tutoring students in their spare time, buying milk for a poor student, walking students home and visiting students and parents at home.

These are examples of school connectedness, which can help students succeed. In the United States, a comprehensive school-based study of health-related behaviors of adolescents revealed the potential of schools to improve the health of teens by fostering school connectedness, thus providing a healthy psycho-social school environment. The study found that "when students feel they are part of school, say they are treated fairly by teachers, and feel close to people at school, they are healthier and more likely to succeed" (Blum, McNeely, & Rinehart, 2002).

Thus, the HPS project in Zhejiang Province improved school connectedness through a healthy psycho-social environment.

Evaluation results indicate HPS effectiveness and reshape assessment

When we asked participants about the differences between the situation before the HPS project started and at final evaluation (about 1.5 years later), they reported remarkable changes that pointed to the effectiveness of the HPS approach and to a change in evaluation standards.

Many participants made general remarks that the project was “successful” and that “everything is getting better and better.” More specifically, besides the improvements in the facilities of the school, participants mentioned that they gained more knowledge and skills and developed a deeper understanding about health. Students regained their confidence and felt more optimistic about their future, developed the ability to control their moods and solve problems. Parents learned from their children, promoting the healthy development of the parents. Reportedly, students stopped littering and improved their personal hygiene; teachers and fathers stopped smoking; injuries among students decreased; children and families adopted more healthy and balanced dietary patterns and increased their physical exercise. Relationships between teachers and students and between students and their parents improved. Teachers and students became like friends and had a harmonious relationship, students helped each other, and parents communicated more frequently and meaningful with their children. The school became such a good place that children preferred to stay at school rather than with their family.

All of these changes, and more, pointed to the effectiveness of Health-Promoting Schools as a means to improve health and education. Health impact was demonstrated, for example, in reduced injuries and reduced smoking, and educational impact was demonstrated, for example, in improved relationships of children to parents and teachers, improved social qualities, and improved teacher satisfaction.

In addition, we learned that some schools have changed their standards of achievement to a holistic evaluation of students, including social and emotional factors, not just academic achievement. Most likely, the development of Health-Promoting Schools, together with the national mandate for quality education in China, has contributed to this change toward holistic assessment.

Thus, this study adds evidence to the effectiveness of Health-Promoting Schools and points to a change of evaluation standards to a holistic approach.

Need for training and technical support

All participating schools voiced a need for more training and technical support.

The HPS project provided the opportunity for selected school leaders and teachers to visit HPS, and the sharing of experiences was also part of the formal training workshop at the beginning and additional trainings throughout the project. These training opportunities were, however, apparently not sufficient. During the interviews, many participants mentioned that they needed more training and professional development. We also learned that the schools passed on the WHO-required surveys to the HEI, and the schools waited for results and instructions, apparently unable on their own to handle and interpret the data.

The schools certainly embraced the HPS concept and adopted it to the best of their abilities. Yet, they appeared to lack a deeper level of understanding of the health issues, and they seemed to need more support in teaching students about the issues. People were very eager to learn more.

Thus, to sustain and deepen the project, ongoing training and professional development seems to be a primary need.

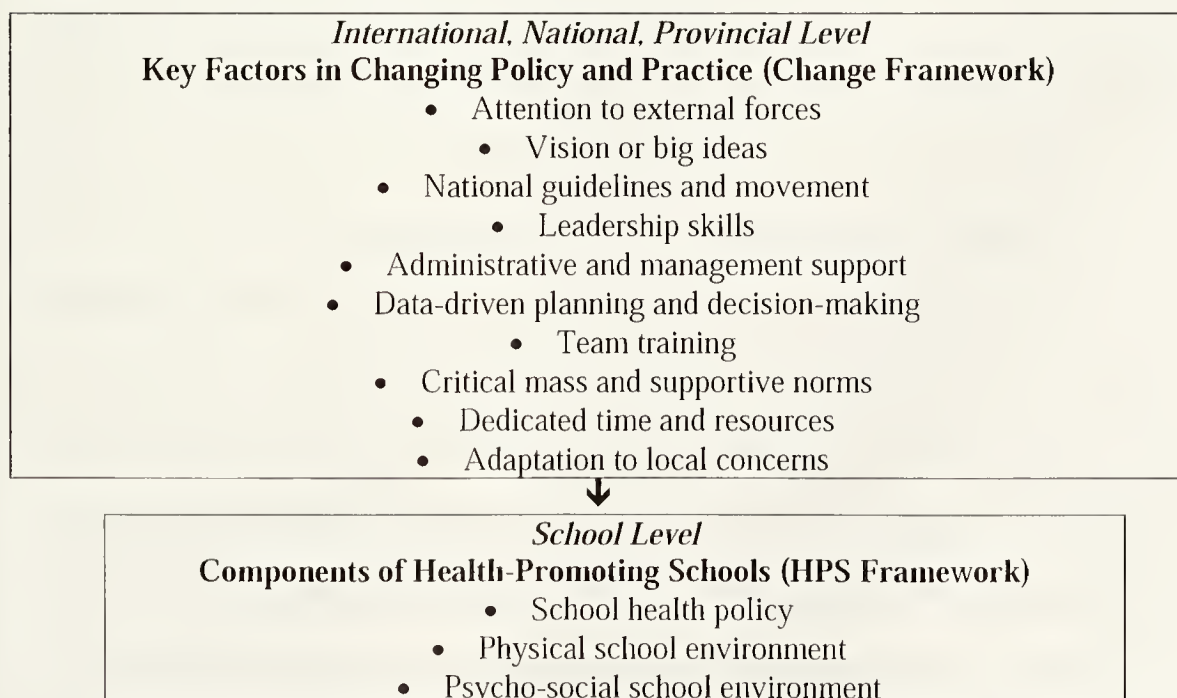
The next chapter applies a 3-part theoretical framework to the findings of the study.

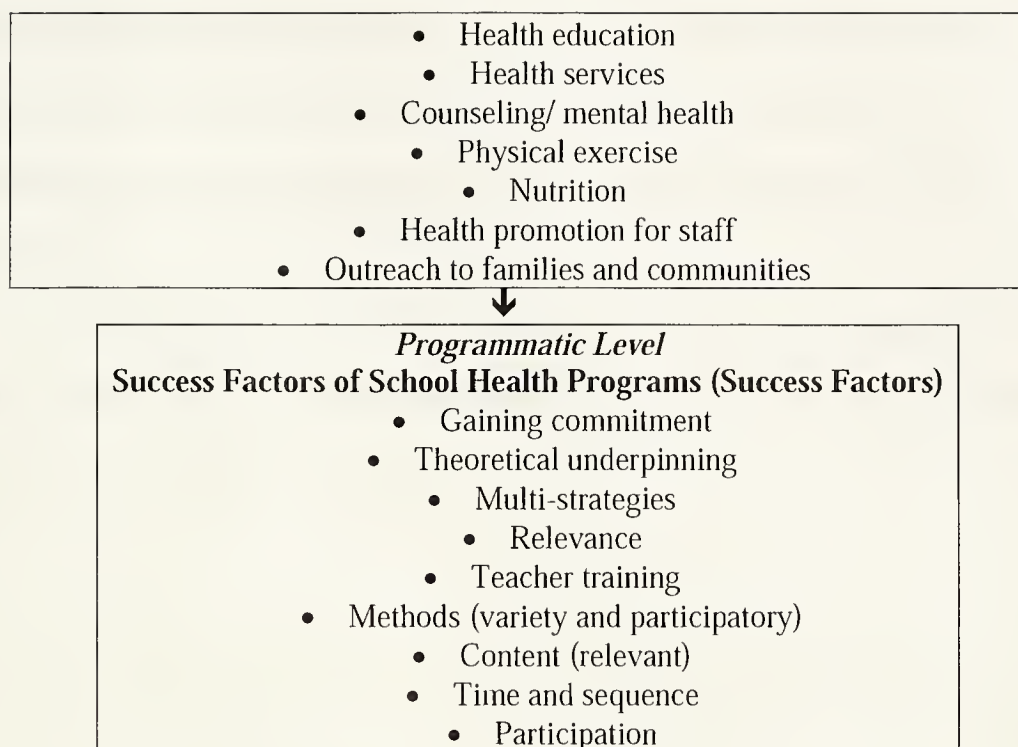
Chapter 9. Theoretical Analysis of the Implementation Process

Theoretical Framework for Analysis

In an effort to demonstrate the extent to which the processes of implementing the HPS project in Zhejiang Province were consistent with current theories, this section analyzes the results using a three-part theoretical framework. This framework is composed, as summarized in Figure 7, of the frameworks introduced in Chapter 1: the Key Factors in Changing Policy and Practice (Change Framework) (Vince Whitman, 1999, 2005); the components of Health-Promoting Schools (HPS framework) (World Health Organization); and the success factors of school health programs (Success factors) (World Health Organization, 2003).

Figure 7. Theoretical Framework for Data Analysis





For the most part, these frameworks are complementary and can be applied at different levels: the Change Framework can be applied at international, national, and provincial levels to identify factors that are essential to diffuse a new concept such as Health-Promoting School; the HPS Framework can be applied at school level to discover how the various HPS elements have been addressed in each school; and the Success Factors can be applied at programmatic level of school-based health education to ascertain if these factors also played a key role in Zhejiang Province. Some of the components of the frameworks overlap; for example, both the Change Framework and the Success Factors have a component on training, and the Change Framework has components that can also be applied at the school level, as has been the case in Zhejiang Province. However, training at the Change Framework level may include administrators and decision-makers, while training at the Success Factor level is mainly for teachers.

None of the frameworks has a separate component on evaluation, which may point to a lack of priority on evaluation in the field of school health, though this seems to be changing as there is more a demand for “evidence” recently (Lynagh et al., 1999; St Leger, 2001).

In the pages that follow, I utilize each of the three frameworks to analyze the process of implementing the HPS project in Zhejiang Province, China. Figure 9 (page 400) presents a summary of the findings.

Key Factors in Changing Policy and Practice (Change Framework)

This framework points to 10 essential factors that bring about change and diffuse new ideas: attention to external forces, vision or big ideas, national guidelines and movement, leadership skills, administrative and management support, data-driven planning and decision-making, team training, critical mass and supportive norms, dedicated time and resources, adaptation to local concerns.

Attention to external forces

One of the factors in the Change Framework is paying attention to external forces. The most important external factors that influence the process of implementing the HPS project in Zhejiang Province, China, seem to be the one-child policy, the political system, and the educational system. Related external factors are the current health issues and the health concept in China.

One-child policy. China's one-child policy, introduced in 1979 and underpinned by a system of rewards and penalties, allows one child for urban residents and, with some restrictions, two children for rural residents (Hesketh, Li, & Zhu, 2005). The effects of this policy played a role in implementing the HPS project in two aspects.

First, because the government permits parents to have only one child, they have an intense desire for that child to succeed and prosper. Because they recognize that access to higher education is an important path to success and prosperity, they often have very high academic expectations for their child. For example, one parent said that in school, a child is one of many, but at home, the child is "the whole life" for his or her parents. Parents transfer high expectations to their children, this often results in a lot of pressure for them to do very well in school, and such pressures are not supportive of social and emotional well-being. School administrators, teachers, students, and parents in this study all seemed to agree that students are under much pressure to succeed in school. Data from the GSHS complement these perceptions. An indication of this pressure is likely the fact that, on average, 19.6% of those age 16 or older in the participating project schools in Zhejiang Province responded in the GSHS that they seriously considered attempting suicide during the past 12 months. The highest rate reported in one of the schools in this study was 22.3%.

Overall, after analyzing all these data, I came away with a strong impression of how much pressure and competition to do well each family's child experiences. This pressure and competition was especially fierce in an elite school, where a student passionately told us we could not imagine how greatly different the situation was from the U.S. This student thought his parents would not love him anymore if he could not get

into a good college. Another student from this school wrote about mental pressure in city schools:

1. Students in the city.

In today's China, especially in many cities, most of the parents could offer their children with nutritious and nice food. We students usually have our lunch at school, and many schools do pay much attention to make the food balanced and delicious. But on the other hand, as China's one-child policy in cities, the students have much pressure about their study and their life from the parents, teachers and the whole society. We have to take many exams at school and do much homework at home. And some students even don't want to go to school and really have some mental problems.

The pressure extends beyond the children to their teachers, as families expect teachers to enable students to succeed. In one school, a teacher mentioned that there was a lot of pressure from students, parents, the school, and teachers themselves focusing on academic study, but some students just could not meet the expectations. It was a satisfaction for this teacher to focus on a broader concept of development of children, to give personal advice like a "big brother," and to focus on a variety of abilities and not solely academic achievement.

On the other hand, the one child—often described as "spoiled"—can exert quite some influence on his or her parents and grandparents in passing on knowledge and convincing parents and grandparents to adopt healthier habits. After interviews at the first school, I formed the hypothesis that the one-child policy is one of the important factors that makes the implementation of the HPS project successful in China. For example, one parent said that, since they had only one child, if the child gave them good suggestions, they would follow his or her advice. Teachers, parents, and students repeatedly noted that because parents have only one child, children wield tremendous influence in their families. They indicated that parents and grandparents are likely to follow the suggestions and advice from their children and grandchildren. They consider the child "the little

emperor.” Indeed, parents seemed to make behavior changes, especially reducing or quitting smoking (mostly fathers or grandfathers) and changing dietary habits (mostly mothers) after children shared new knowledge and expectations. Grandparents seemed to be especially responsive to their grandchildren, whom they reportedly “spoiled.” For example, grandfathers told us they stopped smoking after their grandchildren convinced them to do so. Our interpreter during the third round of data gathering confirmed that children in China are very spoiled, and parents get for them whatever they want since they are an only child.

Thus, the results of the study indicate that the one-child policy contributes the risk factor of academic pressure that resulted in stress and affected mental health, but also contributes the success factor of effective outreach to family members and convincing them to change unhealthy behaviors.

Political system. Part of my hypothesis during the first round of data gathering was that the political system in China is one of the important factors that make the implementation of the HPS project successful in China.

We learned during the interviews that leaders in the school and the municipal governments gave priority to this project. In one school, a government official was present during our interview with the school administrators, which showed the strong support from the municipal government. The translator during our first round of data gathering mentioned that the socialist/communist system might help this kind of project because if the party or government requires something, it has to be done. This would help especially a large-scale project. Wang (2003) in his book *Education in China since 1976*

explains, “The Central Committee of the Communist Party of China is responsible for directing the whole country’s educational development and for guiding the reforms of the educational system” (p. 284).

As reported below, schools established HPS committees, led by principals and vice principals. Participants sometimes referred to these school leaders as the “authority” of the school. The vice principal was usually a person from the Communist Party who was responsible for “moral” education and leadership. This leadership committee, which also included school staff from all-important departments of the school, served to disseminate the HPS concept and interventions systematically throughout the school.

Thus, the results of the study indicate that the political system in China, and its impact at the local and school level, contributes to the successful implementation of the HPS project in China.

Educational system. It was apparent throughout the interviews that the educational system in China is different from the school systems in Western countries.

During multiple interviews, participants mentioned the fierce academic pressure in Chinese schools. As data from our interviews showed, and a Chinese friend confirmed, key schools or leading schools have an exemplary role. Students gain access to these schools through high scores on exams and other factors. Parents have extremely high expectations for the lives of their children. However, there is also pressure in regular schools. There is competition at each level. In this type of scholastic environment, it is understandable that students do not want to help each other or tell each other the solution, and the atmosphere traditionally has been very individualistic. There is no focus on

teamwork because school administrators traditionally believed that the best way for teachers to convey large amounts of information efficiently is for students to be passive, rote learners and to obey directions. Students focus very much on details and study very long hours. There are universal college entrance exams all over China, and the competition is harsh.

The findings described above confirm and elaborate on the introduction to the Chinese educational system in Chapter 1. Education in China traditionally serves foremost as a tool to strengthen the country. Standardized textbooks are common, and teachers have a high level of authority. Students are not encouraged to challenge knowledge from teachers and textbooks. Learning traditionally involves passive methods such as listening, thinking, and silent practice (Marlow-Ferguson & Lopez, 2002). However, the government recognizes some of the shortcomings of this system, and at the time the project was implemented, the Ministry of Education was calling for educating students in an all-round way (Wang, 2003).

Viewed in the context of this transitional state of education in China, it seems the HPS project has come to China at an opportune time. During the project, we heard that teachers implemented more participatory activities. As reported earlier, students enjoyed the participatory activities—in which they were actively involved—and the activities kept their attention more than the traditional lecturing. Students reportedly started working together and supporting each other. We also learned that teachers started to evaluate students not only according to their academic achievements but also according to physical, emotional, and social health and development, as reported in Chapter 4.

Thus, the results of the study—participants' reported ability to engage in new methods of teaching and learning—indicate that the proposed changes in the educational system likely contribute to the successful implementation of the HPS project in China.

Health issues. Since Health-Promoting Schools address, by their name, health issues, health indicators are an important external factor in determining whether Health-Promoting Schools address prevalent health topics.

A nationally representative cohort study of the major causes of death and modifiable risk factors in China suggests that “control of hypertension, smoking cessation, increased physical activity, and improved nutrition should be important strategies for reducing the burden of premature death among adults in China” (He et al., 2005, p. 1124). In 2006, a newspaper article pointed out that “China is the largest consumer and producer of tobacco in the world” (China Daily, 2006). Of the nine schools in this study, three had nutrition and one had tobacco prevention as their priority area or entry point. However, in at least six schools (Schools 1, 2, 4, 5, 8, 9) participants reported they or their family members reduced or stopped smoking, and in at least five schools (Schools 1, 4, 6, 8, 9) participants reported that they made changes to their dietary habits. All schools, except School 1, where we saw sports facilities in the schoolyard, reported about physical exercises. Participants in School 6 particularly reported about required morning exercises for students.

Accidents are also a pressing health concern in China, where “injuries have become a major public health problem, especially in the working-age population” (Lee,

2004, p. 333). During the study, we learned that accidental injuries were more prevalent in rural areas. Two of the rural schools addressed injury prevention.

Furthermore, “issues of ill mental health are increasingly apparent in China and still at the periphery of and separated from public health practice” (Lee, 2004, p. 332). Increasing scholastic pressure contributes to stress and impedes psycho-social well-being, as stated above. In addition, suicide is an apparent health problem, especially among rural women of childbearing age (Lee, 2004). Three of the schools addressed psychological or mental health as their entry points, but participants from at least six schools (School 3, 4, 5, 6, 7, 9) mentioned that their schools offered psychological consultations.

As we heard in the interviews repeatedly, at virtually every school, participants wanted—and needed—to learn more about health and the determinants of health. This may help explain the fact that knowledge dissemination seems to be so effective in contributing to health-related changes in attitudes and behavior in Zhejiang Province.

Thus, the survey results indicate that Health-Promoting Schools are a good means to address prevalent and emerging health issues.

Health concept. Realizing that the HPS concept has a Western origin, I asked my Chinese friend to explain what the Chinese characters mean that represent the HPS concept (see Figure 8).

Figure 8. Dissecting the characters for “Health-Promoting School” 健康促进学校

健康 = health

1st character: first part means “person,” second part means “build up;” together this character means “health”

2nd character: first part means “broad,” second part means “slave/person”; together this character means “health”

both characters together mean “health”

促进 = promote/promotion

1st character: first part means “person,” second part means “foot”; together this character means “push (forward)”

2nd character: first part means “walk,” second part means “well” (where water comes from); together this character means “go forward”

both characters together mean “promote” (push forward, start up)

学校 = school

1st character means: learn, study

2nd character means: school

both characters together mean: (study) school

(Personal communication, September 25, 2005)

While the build-up of the characters might imply a broad concept of health, we learned during the interviews that participants initially thought of health as physical health only, as reported in Chapter 7. Through the HPS project, they gained a broader understanding that included psychological and social health.

A historical view of health in China shows that “to heal” means “to make whole” in Chinese, and traditionally health meant not just the absence of illness or symptoms but “an integrated balance of physical well-being, personal happiness, good fortune, and harmony” (Kohn, 2005, p. 3). Chinese medicine saw the larger picture of the human being in a cosmic and social context and understood the essential unity and close correlation between body and mind (Kohn, 2005, p. 6). However, medicine in China was “modernized” and “made acceptable in Western scientific and biomedical terms” (Kohn, 2005, p. 98), thus it is no longer based on an integrated cosmology but follows scientific and materialistic thinking. It no longer views the patient as a dynamic, complex whole but isolates symptoms and diseases and loses the integrative vision of the person as a social, emotional, and spiritual being (Kohn, 2005, p. 105).

While this shows the sad influence that a Western medical model had on an integrative view of health in ancient China, the results of the HPS study indicate that a

Western-conceived comprehensive school health concept might be able to bring back a holistic view of health to China.

Vision or big ideas

Another factor in the Change Framework is having a vision or “big idea.” Given the situation described above, a vision or big idea was one of the first key factors in changing policy and practice. The WHO at the global level, the Chinese CDC at the national and provincial levels, and principals at the school level pursued the vision of establishing *Health-Promoting Schools*. Incentives to follow this idea at the school level included an HPS medal, fame and recognition, and the desire to be more like advanced schools. Schools translated this vision into a “health is first” concept; this concept meant that schools kept health as a priority running through all the day’s activities and integrated health content into daily education work. In some schools, it was initially challenging to get participants to understand the HPS concept.

Eventually, almost all the schools who participated in this cohort of expanding Health-Promoting Schools in Zhejiang Province won the Bronze Medal. These study results indicate that the schools were able to achieve their vision.

National guidelines and movement

A further factor in the Change Framework is having national guidelines. In China, the central government is responsible for setting up guiding principles and macro planning for primary and secondary education. The Ministry of Education has recognized the heavy study load on students in primary and secondary education in the name of high

exam marks. In 2000, an investigation by the Municipal Education Commission in Zhejiang Province revealed that students stayed in their schools for more than 12 hours every day (Wang, 2003). The Ministry of Education issued “several documents aimed at reducing student workload and increasing the quality of education” (Wang, 2003, p. 141). Particularly parents told us that the HPS concept fit exactly with the government mandated *quality education*.

However, we also learned that in some instances there was a lack of governmental support, including a lack of financial support. The translator during our first round of data gathering told us that the government might give regulations and policies, but not necessarily money to implement the policies. Our visits to the schools helped draw attention to the HPS project and might have been one factor to advocate for governmental monetary support. Further, in some cities municipal administrators were part of our school meetings, which showed their strong support.

Thus, the study indicates that national guidelines and movement for quality education was a stimulating factor in support of the HPS project, and our visits to the schools and visits of government officials helped to advocate and show support.

Leadership skills

Leadership is another factor in the Change Framework. In addition to the support from the municipal government, and especially in cases where strong support from the municipal government was lacking, the strong leadership of the *school principal* and administrators was crucial. Some principals became role models for healthy behavior by stopping smoking or walking to school. Teachers often followed suit. School principals

or designated teachers led the special HPS committees. Some of the school administrators communicated with the government to win their support. Some schools had a team of administrators who considered themselves “co-workers” on this project.

Thus, the study showed that principals provided the inspiration and ability to motivate people to pursue the vision.

Administrative and management support

A further factor in the Change Framework is administrative and management support. Schools set up special *HPS planning committees*. Principals and/or vice-principals led or co-led these committees, and committee members included administrators and teachers with authority from various areas throughout the school (e.g., morality education, physical education, logistics, teaching, student works, school health service, counseling). Schools selected committee members according to the positions and roles they already held, so as to attach the project to their regular work systematically throughout the school. In some cases, students, parents, and/or community members also served on this committee. The committees discussed the kind of policy to carry out, made a plan and discussed details and assignments of tasks and strategies to carry out the plan. They set up and perfected various systems in the school, made modifications to the school policy, and took responsibility for project implementation. They developed a work plan, based on their regular work, integrating HPS interventions and making them part of the overall school responsibility. *Popularizing the HPS concept* through various means of communication also played an important role as part of the administrative and management support of this project. Schools used wallboards and bulletins for

propaganda, students passed on materials to parents and community members, and schools held parents' meetings and sent letters to parents. One school reported using news media and the Internet for publicity.

Study results indicate that this combination of special HPS committees, and frequent and various communication to popularize the HPS concept and interventions seemed to ensure that the HPS concept and interventions could be spread efficiently throughout the school and to the community.

Data-driven planning and decision-making

Another factor in the Change Framework is data-driven planning and decision-making. Schools utilized different mechanisms for choosing their entry points or prevalent health topic of focus. In most cases, they considered various factors related to *experience, perception, and survey data* to make a case for their choices. Several of the schools seemed to consider the developmental level and “sensitive age” of their students when choosing the entry point. Schools conducted the surveys required by the WHO project—the GSHS for 13- to 15-year-olds and the PSE at pre- and post-test—and a locally developed survey according to each entry point. However, we realized that most schools in this study did not use the data from the WHO-required surveys for choosing their entry points. This might have been due to the time delay in getting the data analyzed and receiving instructions from the HEI on how to use the results. It also might have been due to a different level of thinking. When requesting that developing countries utilize international surveys, even though a Chinese representative was part of the team that

developed the survey instrument, researchers need to ensure the cultural adaptability of the instrument, and they need to offer sufficient training to participants.

Perhaps, too, public health surveillance data does not play as paramount a role in decision-making in China as it does in Western societies—though some schools mentioned surveys and statistics as part of their decision-making, and one school particularly mentioned the WHO-required surveys while others had some confusion when we asked about the WHO surveys. In some cases, schools chose a health topic in which they already had a good foundation as an entry point, while other schools chose a health topic that they had not previously addressed. Teachers also gave various reasons for why they chose the topics they addressed. Some teachers investigated the situations of individual students, especially related to mental health issues and sometimes through home visits with parents, so that they could individualize their care for these students.

Thus, the study showed that schools had various “data-based” mechanisms for decision-making, but they did not necessarily utilize mortality and morbidity data that a public health approach would suggest.

Team training

A further factor in the Change Framework is training. As mentioned above, training is a crucial part of capacity building. Participants needed initial training to support them in *learning the HPS concept*. Delegates from each school went to an initial workshop in October 2003 with CDC, national, and international experts. Part of the training also included *visits to other Health-Promoting Schools* in the province. Then each school organized meetings in which those who had participated in the trainings

passed on their knowledge. Administrators and teachers also studied the WHO-issued HPS documents, and, in some cases, schools offered additional *trainings by CDC staff and/or other experts*. We saw pictures in which the whole schoolyard was filled with participants for trainings by CDC staff, thus these were sometimes truly team trainings. Some teachers engaged in *self-study*, for example, to gain psychological certifications. Parents were “trained” through information passed on to them by their children and through parents’ meetings. Despite these training efforts, a lack of knowledge, skills, methods, theoretical guidance, and experience in health promotion; a lack of technical support; and a lack of qualified staff were mentioned many times during the interviews.

Thus, while various means of training initially enabled schools to establish Health-Promoting Schools, participants requested more training, guidance, and sharing of experiences. Study results indicate that training plays an important role in effective HPS implementation.

Critical mass and supportive norms

Another factor in the Change Framework is having a critical mass and supportive norms. It was important to get a critical mass of people to support the HPS effort. *Start-up or mobilization meetings* served as initial advocacy events for gaining commitment for the HPS project among the entire school population. Schools held some of these start-up meetings for students only, and some of the meetings involved families. Some schools had a *signature activity* in which students committed, for example, not to smoke or to stick to the rules. In some cases, individuals were instrumental in moving the concept forward and establishing supportive norms. Informally, the nurse of one school told us

that not all faculty members supported the HPS plan she initially developed. However, as she continued her efforts, and the school became successful and famous as a Health-Promoting School, faculty became increasingly supportive. We found that, especially during the third round of data gathering, some schools viewed the HPS project as a co-responsibility of the school, parents, community, and government. In many schools, participants called for the project to continue its efforts and expand to other schools.

Thus, study results indicate that mobilization meetings and signature activities helped establish a critical mass of people committed to supporting the development of Health-Promoting Schools. However, further expansion is needed to spread the HPS concept even more widely and to more schools.

Dedicated time and resources

Another factor in the Change Framework is having dedicated time and resources. Participants required adequate time and resources to establish and implement Health-Promoting Schools. As mentioned above, schools established *special HPS committees*. Committee members all played a role in planning and implementing the project. Integrating their HPS project responsibilities into their regular work seemed to make it more sustainable. A few times, we heard that the added workload was still heavy and tiresome for school staff. We also learned that to meet WHO requirements for Health-Promoting School, schools needed to mobilize sometimes substantial amounts of *financial support to improve school facilities*. Participants noted that it *required time to change habits* that might have been established over a long time, and that health

promotion was a long-term goal. In some cases, a lack of funds or facilities was a challenge.

Thus, study results confirm that to implement the HPS project, schools need a dedicated team, financial support, and time.

Adaptation to local concerns

A further factor in the Change Framework is adaptation to local concerns. While interventions needed to ensure fidelity of the overall HPS concept, they also needed to be adapted to local situations. Each school developed a *work plan* according to the HPS project and related it to the school's condition. The basic principle was to adapt this project by taking the "practical situation" of each school into consideration. For example, vocational school students might have previously experienced failure, and they might need to develop confidence. In rural schools, students and families might have lower basic educational levels, and they might need to learn about safety and injury prevention. In urban schools, students might experience a lot of pressure to achieve high academic scores, and they might benefit from psychological consultation. Some schools were concerned about *balancing health and academics*, especially when parents were worried that the HPS project might have a negative impact on their child's academic education.

Thus, study results indicate that developing a work plan tailored to each individual school helped to adapt the HPS project to local needs and concerns.

Reflection

As this analysis shows, participating schools were driven by a vision for Health-Promoting Schools, which supported the national movement toward quality education, had strong leadership from their principals and vice-principals, and developed HPS committees that provided dedicated administrative and management support. While the committees made use of survey data, their experience and their perceptions of their students' needs also guided their planning. Training took place through learning the HPS concept, visits to other Health-Promoting Schools, other workshops and self-study though was still not sufficient in all cases. Mobilization meetings and signature activities helped create a critical mass of supporters and supportive norms, and a work plan for each school helped to adapt the project to local concerns and to the specific situation of each school. External, national forces—such as the one-child policy—influenced all of these HPS efforts. The one-child policy—that contributed the risk factor of academic pressure, but also the success factor of effective outreach to families—had a particularly strong impact on project implementation. The orientation in the educational system toward quality education was a supportive external factor, as was the reorientation of “health” to a more holistic concept. The implications of the political system helped ensure systematic and dedicated attention.

Overall, the HPS project in Zhejiang Province confirmed the essential *Key Factors in Changing Policy and Practice* (Vince Whitman, 1999, 2005) and, consequently also largely the recently published *Protocols and guidelines for Health-Promoting Schools* (St Leger, 2005).

The next section of this chapter will look at the components of a Health-Promoting School and how they have been addressed in Zhejiang Province.

Components of Health-Promoting Schools (HPS Framework)

This section serves two purposes. First, the descriptive and compartmentalized reporting of the processes and components of establishing Health-Promoting Schools in the previous chapters might not have done justice to the unique features and atmospheres of each school. This section is, therefore, organized by the characteristics and key features of *each school* that stood out—during our visits, in the transcriptions, or in the summary notes of our team members—and were most frequently coded. Second, this section gives examples of how each school addressed the various HPS components: school health policy, physical school environment, psycho-social school environment, health education, health services, counseling/mental health, physical exercise, nutrition, health promotion for staff, and outreach to families and communities. The analysis focuses on components that participants discussed during the school visits. (Detailed data were available from Schools 7–9 because of different questions and interview format.)

School 1

School 1 was a former pilot school with nutrition as an entry point. This school served as a model, and many colleagues that were establishing new Health-Promoting Schools visited the school. This school had a contract with a textbook publisher, which—a Chinese friend told me—is unusual. The role of the school nurse as an advocate for the

HPS project was very apparent, and she sat in during most of the interviews. This was the first school at which we interviewed, and I realized how challenging it could be to get answers to our questions when interviewing the female principal. (I concluded that people might have in mind what they wanted to say and might not always provide answers to my specific questions.)

The most frequently mentioned activities in this school were health-specific class meetings, communication with parents, parents' meetings, and physical exams/health check-ups (4 quotations each). We observed a very interactive "moral education" class (described in Appendix 13).

Students at this elementary school told us they convinced their fathers or grandfathers to stop smoking (5 quotations). Participants also mentioned that they modified their diets (5 quotations). A particular challenge in this school was extending psychological training to more teachers, as currently only the nurse had psychological training.

School 1 improved what they have done in the past, which included rules and *school policies*. To improve the *physical school environment*, the school made efforts to improve their facilities; they reconstructed the dining hall and enlarged its space and they constructed a multimedia classroom. Regarding the *psycho-social school environment*, students and teachers became like friends. The school purposely integrated *health education*, in this case teaching about nutrition, into regular teaching in various subjects such as math, English, and Chinese. They also set up a new course for nutrition education once a week. We observed a very interactive class on loving family relationships.

For *health services*, students had an annual medical check-up at the hospital. The school shared the results of the check-ups with parents, accompanied by specific instructions and follow-up by teachers. For *nutrition services*, this school paid a lot of attention to nutritious lunches, and got recipes for nutritious food from community hospital. *Outreach to parents and communities* included distribution of thousands of materials to students' families with suggestions for a balanced menu. The school also issued letters to parents, and a copy of students' physical exam. In the class that we observed a mother told a story about her family. The school put on shows and performances to attract people's attention. Teachers took students out to the community to do publicity, and the school told owners of restaurants to pay attention to nutritious food. Some children successfully persuaded their fathers or grandfathers to reduce or quit smoking.

School 2

School 2 was a rather new school, attached to a college. This school also had nutrition as an entry point. People seemed to be very sincere, open and honest. For example, the vice headmaster shared his latest idea about teaching health education during the interview but the headmaster did not agree with it, the person in charge of the Health-Promoting School told us over lunch about his initial difficulties finding information about Health-Promoting Schools, a student asked what the real purpose was of our visit, and only one parent came to the interview. My interpreter said that the parent seemed to give honest answers, without prior coaching from the school, and the parent

felt a bit uncomfortable about some of the questions because the school had not done many activities yet.

This was the first school in which we heard that the headmaster stopped smoking in public to set a good example, and some teachers followed suit. As the headmaster said, “Only when the headmaster is healthy, students can be healthy.” Overall, the school leadership seemed to be very respectful and caring.

In its detailed, well-organized work plan, School 2 listed activities, participants, methods, and a host for activities at the beginning, middle, and end of each month. Students of this school participated in the start-up evening the night before we visited, and they had completed a dormitory beautification project. The most frequently mentioned activities in this school were sanitary activities (6 quotations), especially dormitory beautification. Teachers from different subjects gave various examples of how they tried to integrate health into their regular teaching (5 quotations). Lack of financial support was the most frequently mentioned challenge (3 quotations).

This school printed their *school policy* on a wall at the entrance. They had extensive written HPS rules (see Appendix 7) which included requirements to make rules for a safe and healthy educational environment, for health education, promoting students’ psychological quality, teacher education, parents’ education, and setting up an award system for those who contributed to the HPS project. In addition, there were specific rules for each of the school units such as for the HPS committee, morality department, logistics department, teaching department. To improve their *physical school environment* this school held a dormitory beautification competition. Regarding the *psycho-social school environment*, the authority of the school was respectful, friendly, and easy-going

with students. Students, teachers, and authority lived in harmony. The school also integrated *health education* into the teaching of various subjects, including biology and PE, though not all teachers had integrated it yet.

For *health services*, School 2 provided medical check-ups for students and faculty once a year. For *nutrition services*, they got a nutritionist to give advice about nutrition and a special balanced diet for each grade. For *physical exercise*, this school encouraged outdoor sports, had “self-activity class,” and had a rule that students could not stay in the classroom but had to go outside. Regarding *health promotion for staff*, this school encouraged teachers to stop smoking, step-by-step. As noted earlier, the headmaster, who had smoked for 30 years, started by setting a good example himself and did not smoke in public anymore. Other teachers followed suit. *Outreach to parents and communities* had been done for junior students only, and the school issued two advocacy letters to parents. Teachers also regularly conducted home visits. They reached the community mainly by communicating with parents who passed on information to the community.

School 3

School 3 was a resource-rich school. All groups of participants that we talked to mentioned the extreme pressure that they experienced in this elite high school, which was expected to train young people that could lead the country forward. Consequently, this school selected psychological health as its entry point. They had also addressed psychological health before becoming a Health-Promoting School, which they considered a good foundation. Two mothers gave examples of how teachers really cared for their daughters in particular situations. It appeared that this school had just issued a newsletter with a plan for this project a few days before we arrived. The most frequently mentioned

activities were communication with parents (5 quotations) and psychological consultations (5 quotations). The most talked about challenges were balancing academics and health (3 quotations) and lack of technical support (3 quotations).

The school wrote detailed “Strategies and Steps” for developing an *HPS policy*. The list of steps included items such as “make a plan to deal with such issues as the prevention of common health conditions” and “make a plan to deal with such issues as promoting better nutrition for students, prohibiting smoking, promoting equality between male and female students and ensuring that disabled students are not discriminated against.” The school had just established these strategies, and there might not have been time for staff to begin to implement the strategies when we visited this school during the first round of data gathering. Part of the strategies for the *physical school environment* included improving sanitation facilities. Regarding the *psycho-social school environment*, teachers provided encouragement and praise and the school strove for an environment of mutual concern, honesty and warmth. The school related *health education* to regular teaching and emphasized psychological education more than before.

For its *health services*, the school offered health check-ups for students and teachers and provided standard prevention and treatment measures for commonly occurring health conditions. Regarding *counseling/mental health services*, the school reserved 1 hour after lunch for psychological consultation, had a psychological curriculum, and offered a hotline with a psychological consultant. For *physical exercise*, and in keeping with the tradition of the founder, this school organized a lot of sports and team activities such as football, basketball, and baseball matches. *Outreach to parents* included regular communication with parents. Head teachers called parents and reported

their children's conditions. The school also sent a letter to parents and invited parents to participate.

School 4

School 4 had a female representative from the municipal government participate in our meetings, which showed the government's strong support. Unique features of this school included its green school environment, and large colorful wallboards on which they posted the HPS policy. This was the only school in this study with tobacco prevention as their declared entry point as their city had a high rate of tobacco consumption. (Other schools also addressed tobacco prevention, but did not have it as their entry points.) However, participants also told us of activities that addressed sanitary and hygienic habits, balanced diet, psychological assistance, physical activity, communication with parents, and improvement of the school environment. All groups of participants mentioned that parents were concerned that their children were spending too much time on health rather than on academic education, and that might have a negative impact on their academic achievement (18 quotations). A related concern was the challenge of extending health promotion to the community (17 quotations).

The most frequently mentioned activities were health-specific class meetings (30 quotations), nutritious food (17 quotations), and dissemination to community (15 quotations). Many participants talked about improvements in the school environment (17 quotations) and particularly, about trees, etc. (12 quotations). We also heard often about the popularization of knowledge (14 quotations) and about goals and regulations that had been established (12 quotations). In regard to changes in individuals' lives, many

participants reported changing their attitude and paying more attention to health (19 quotations), and the most frequently mentioned behavior changes were reducing or quitting smoking (28 quotations) and improving sanitary habits (24 quotations).

This school, as mentioned, had large and nicely designed wallboards on which they posted their *HPS policy*. One parent recalled that there was a “class meeting about creating a no-smoking school and encouraged students to sign their names to stick to the rules.” To improve the *physical school environment*, this school obtained funding from the government to improve their dormitory buildings and to acquire multimedia equipment. This school made a special effort to set up a green school environment. The dining room was also improved and made more sanitary. Students did not litter anymore but used the trash can. Regarding the *psycho-social school environment*, participants described this school as “the students’ study and living paradise” and “a good place to enjoy, relax and study.” The school integrated *health education* into teaching in various subjects such as English, sociology, and the work of the school doctor. They emphasized tobacco prevention and initiated drawing and writing competitions about tobacco and health.

For *health services*, School 4 provided regular physical examinations for students and staff, and offered services for the prevention and treatment of common and infectious diseases. Every week, the school checked the appearance of all students. For *nutrition services*, the school started to provide balanced “fixed meals” to make sure students could get a balanced diet. Each day, the dining hall served a different, balanced, colorful meal. Regarding *counseling/mental health services*, this school opened a psychological consultation room and required each teacher to bring psychological health education into

the classroom. For *physical exercise*, students mentioned that the school tried to persuade students to make more time for physical activities. Regarding *health promotion for staff*, many teachers reduced or quit smoking after the school provided some information about the health consequences of smoking. *Outreach to parents and communities* included communicating the harmful effects of tobacco to parents. The school increased the communications between children and parents. They also launched parents' meetings, or parents' school. Students went to residential blocks to propagate health knowledge and distribute health education materials. Fathers and grandfathers reduced or quit smoking.

School 5

Led by a female principal, School 5 was located on an island. It selected psychological health as its entry point. This is the school first analyzed for this study because we had the most documents, including a school report in English.

All groups, except for the parents, told us that the school set the priority "health is first." The school had two unique features in its implementation of the HPS project. It elected student "health ambassadors" as key people and models for this project. They also had four-student groups in which students of various academic ability supported and cared for each other. The "caring" attitude of this school was also an outstanding aspect for our WHO colleague, who wrote in his notes, "CARING—It comes through."

The most frequently mentioned activities in this school were writing/drawing competitions (22 quotations), health-specific class meetings (21 quotations) and a special mailbox or hotline (21 quotations), followed by physical activity (17 quotations) which included "military training," and psychological consultation (16 quotations). Respondents

also mentioned improved facilities (14 quotations) and the “health is first” concept (24 quotations).

When asked about changes in individuals’ attitudes, participants reported having a broader concept of health (7 quotations) and paying more attention to health (6 quotations). Respondents told us they had improved their sanitary habits (6 quotations) and were actively participating in the project (5 quotations). In particular, communication with children increased (10 quotations), especially between parents and children, but also in the school. The most frequently mentioned challenge was a lack of knowledge (21 quotations), followed by lack of technical support (12 quotations).

This school established and improved more than 20 items of *school policy* issues in the early months of the project, such as health education, hygiene, smoking ban, emergency plan of infectious disease, emergency safety plan, hygiene management system of dining room, classteachers’ assessing system. As mentioned, this school also had a “health is first” policy that meant they put priority on health in their daily work. To improve the *physical school environment*, this school improved facilities and classrooms. The school also improved its sanitary conditions, supplied teachers and students with free pure water, and provided guidelines for classroom decorations that guaranteed a graceful and comfortable environment. Regarding the *psycho-social school environment*, the four-student groups nurtured the development of good relationships among the students. Students and teachers also had good relationships—to the extent that students often felt more comfortable talking to their teachers than to their parents. The school also fostered equal treatment among students and between teachers and students. The caring attitude was apparent. The school integrated *health education* into its regular courses (e.g.,

mathematics, sociology, Chinese language) and held class meetings on mental health.

This school also had health ambassadors, as mentioned.

For *health services*, this school had a physical examination center for teachers and students. For *nutrition services*, they paid attention to providing nutritious food, strict hygiene control in the dining hall, offering balanced meals, and encouraging kitchen staff to have training. Regarding *counseling/mental health services*, this school set aside a special room for psychological consultation, with services provided by specially trained teachers. They also had a hotline for psychological consultation and a special mailbox where students could share their “secrets.” This school also provided opportunities for *physical activity*, organized their first military training, improved various kinds of sports equipments, and encouraged students to participate in matches of various kinds and levels such as basketball, mountaineering, volleyball, football, and track. Regarding *health promotion for staff*, some male staff who had smoked for a long time quit smoking completely or did not smoke on campus after the school became a smoke-free campus. *Outreach to parents and communities* included children introducing health knowledge to their parents. The school also held special parents meetings during which parents were educated about health and then examined to determine how much they have learned. Regular meetings for parents also taught them how to communicate with their children. Students went into communities to disseminate knowledge of health promotion.

School 6

School 6 was a vocational school that was located in the suburbs, away from the communities. It selected nutrition as entry point. This was the only school in which we

had a chance to eat the balanced school meal—albeit supplemented with additional dishes and served in a separate dining room. Among administrators, there was an attitude that health promotion was complex and hard work and that the school would need time before it could report on the results of its HPS efforts and share its experiences.

A unique feature was that students had a debit card for purchases at the school store. Since the HPS project, the school allowed students to put more money on their debit card so that by the end of the week they still had enough money to buy nutritious food and did not have to buy instant or junk food. The school also required students to get up early and do morning exercises as part of the project and worked with police to control traffic around the school when students get off on Fridays and go home for the weekend.

The activities participants talked most frequently about were health-specific class meetings (19 quotations), followed by unique student groups—which in this case was a “companion health education association”—nutritious food, physical exercise (13 quotations each), and knowledge dissemination to communities (12 quotations). The school was active in popularizing knowledge about the new project and concept (22 quotations) and in setting up goals and regulations (20 quotations.) Participants also frequently mentioned improvements to school facilities (15 quotations) and having a clean environment (12 quotations). In regard to changes in individuals’ attitudes, paying more attention to health was most frequently mentioned (10 quotations). Many participants discussed changing their bad habits (14 quotations), altering their dietary habits, and improving their sanitary habits (10 quotations each). The major challenge noted by participants was the difficulty in reaching families and communities (22 quotations) because the school was located apart from the communities, and students

came from all over the county. Other challenges were lack of technical support (10 quotations) and that it takes time to make changes (9 quotations).

The school established various *school health policies* such as studying no more than 7 hours, morning running, dining hall regulations, safety regulations, and smoking ban. To improve the *physical school environment* the principal reported that structures and facilities met national security and sanitation standard. The school had sound health, sanitation, and dining facilities. They also established a security office that works 24 hours a day. Students did not litter anymore. Regarding the *psycho-social school environment*, this school had a student-led “companion health education association” in which students cared for and educated each other. There were also good relationships between students, teachers, and leadership of the schools. The school integrated *health education* in subjects such as cooking instruction and physical activity. The school also offered health classes for at least 45 minutes per week.

For *health services*, School 6 provided regular physical exams every year for students and every 2 years for staff. They had school doctors on duty 24 hours, took measures to prevent infectious disease, and vaccinated students. For *nutrition services*, the school increased the variety of food it served, provided more choices in the dining room, and, as noted earlier, allowed students to put more money on their debit cards so they could buy nutritious food rather than instant food or snacks at the end of the week. Regarding *counseling/mental health services*, this school provided psychological assistance from teachers to students. For *physical activity*, this school established morning exercises for students and encouraged other competitions such as basketball matches. *Outreach to parents and communities* included encouraging students to

communicate with their parents and issuing materials about nutrition and health. Students went to two communities to give nutrition and health lectures and to distribute materials. Some fathers reduced smoking.

School 7

School 7 was also a vocational school, which was administered by a private group. This school chose injury prevention as its entry point though the responses during the interviews focused on mental health and how the school helped students to gain confidence. Students came from various locations, even from other provinces. Most students had experienced failure before they entered this school, therefore it was an important task for the school to help students gain confidence and social skills, for example, by teaching job hunting techniques. Students were also not well-behaved before they entered this school, so the school had specific behavior guidelines, which were quantified and monitored as part of the HPS project. Each month students competed and became “models” of good behavior. The school also had safety measures that made parents feel relaxed, knowing that their child was safe and well taken care of in this school. During the HPS project, inspections showed that students felt asleep during classes. Consequently they adopted more interactive teaching methods with less talking and more action, and feedback showed that students were more satisfied and that classes were more fun and engaging. Participants realized that the concept of health included not just physical health, but also psychological and social health. Parents were learning from their children, and communication between children and parents increased.

Participants talked frequently about health-specific class meetings (22 quotations) and about social skills activities (19 quotations) as well as changes in the school environment: improved facilities (34 quotations) and a harmonious atmosphere (13 quotations). People also mentioned the establishment of regulations and systems (13 quotations) and new and interactive teaching methods (18 quotations). In regard to changes in individual lives, many participants talked about paying more attention to health (18 quotations), and having a broader concept of health (15 quotations). Participants talked about changing their social skills (20 quotations) and improving their sanitary habits (16 quotations). Also, communication with parents increased (10 quotations). The most frequently mentioned challenge was the difficult to change bad habits (7 quotations).

This school set up *school health policies* and the requirement that all activities should focus on health promotion, with the aim of healthy development of students. Handbooks, which schools reviewed with students at the beginning of each semester, included specific rules about students' behavior. In the past, guidelines for daily behavior were general, but after the HPS project, they were much more specific. To improve the *physical school environment* the school made substantial investments for improving sports facilities, building a toilet for each dormitory room, and improving the dining room. They also established a sense of environmental protection and cleaning, and students paid more attention to not throwing garbage away. Regarding the *psycho-social school environment*, there were harmonious relationships among people and teachers were like friends to whom students could go to discuss problems. Parents felt relaxed, knowing that the school took good care of their children. *Health education* focused on

gaining confidence and several safety issues. They also invited professionals from health and traffic departments to give lectures. This school had a behavior competition, promoting behavior according to the student handbook.

Health services at School 7 offered and documented physical exams and were operating 24 hours. This school reported a sharp reduction in injuries. Regarding *counseling/mental health services*, they provided psychological counseling and psychological workshops. Teachers also gave personal consulting and helped students improve their confidence. For *physical activity*, this school required all students to run in the morning. They improved sports facilities to ensure 1 hour of physical activity every day for each student, and they participated in sports matches every year. *Outreach to parents and communities* included a lot of negotiation and communication between the school and the parents: the school called parents regularly, held parents meetings to teach common knowledge of health and disease prevention, sent letters to parents to ask parents to pay attention to their child's health. When students went home during vacation, the school asked them to explain the contents of the students' handbook with basic knowledge of health to their parents. They also had organized activities with the community, such as sports matches. During some holidays, students were asked to publicize in communities to have real contact and make them more confident.

School 8

School 8, a rural elementary school, chose injury prevention as its entry point. This school made many improvements in their school facilities. Participants talked frequently about the improvement of school facilities (55 quotations) and particularly of

the playground from a dusty and muddy place to a place that can be used in all seasons and allows villagers to exercise. On the walls around the schoolyard, students painted images about safety. To improve safety, the school started a bus service that brought students to and from school. Children that lived close by walked home, wearing yellow safety caps, and children age 12 and older were allowed to take a bike. The teacher on duty had to make sure that they arrived home safely. Teachers also visited the students at home and communicated with parents through letters and phone calls. Reportedly, all the teachers in this school stopped smoking. Vendors moved away from outside the school because students and teachers were not buying “unqualified food” from them anymore, and the campus was cleaner because students did not have trash to throw away anymore.

This school made various kinds of assessments. Many participants mentioned the attention from leaders that was helpful for this project (17 quotations), and the regulations and systems that had been set up (15 quotations). The most frequently mentioned activities were health-specific class meetings and dissemination of knowledge (24 quotations), followed by communication with parents (17 quotations) and activities related to safety (17 quotations). People also talked about the clean school environment (10 quotations). In regard to changes in individuals’ attitudes, participants most frequently talked about paying more attention to health (29 quotations) and having a broad concept of health (12 quotations). Many participants mentioned changes in their safety behavior (28 quotations), sanitary habits (18 quotations), and smoking behavior (14 quotations). The most frequently mentioned challenge was lack of funds (17 quotations). Lack of technical support was a distant second (6 quotations).

This school established *school health policies* that included a smoking ban, bicycle safety, and a bus service. A policy required that one teacher, every morning, would be the first to arrive at the school, stand at the gate, and welcome students. The teachers had to safeguard their students and could not leave until their students arrived home safely. To improve the *physical school environment* this school renovated their playground, as mentioned above. They also made improvements to facilities, added a gate to the schoolyard, and painted safety messages along the schoolyard walls. The campus became more clean and beautiful and there were regular clean-up activities. Vendors outside the school moved away because students and staff did not buy their food anymore. Students wore yellow caps for safety. Regarding the *psycho-social school environment*, the school had a good atmosphere for students to “live healthily and happily,” and the school tried to give students equal opportunities. The school integrated *health education* into classes (e.g., the Chinese language class). They had lectures about safety and health, and a traffic policeman gave a workshop. There were also various contests about safety.

For *health services*, School 8 had annual physical examinations for students and teachers. A doctor from the village examined the students. Cases of injuries greatly decreased. This school also had *physical exercise activities*. They participated in various matches such as ping-pong and basketball. Regarding *health promotion for staff*, this school asked staff to quit smoking, and all except one teacher quit smoking completely. One teacher used to smoke 2 packs of cigarettes a day, but after the launch of the HPS project he never smoked. A female teacher actively participated in all kinds of physical exercise since this project started and consequently lost weight and was in good shape

now. A teacher who owned a motor car now wore a helmet to set a good example.

Outreach to parents and communities included passing on information to parents, teachers visiting students' homes, and teachers writing 3–4 letters per semester or calling parents. Students served as a bridge to spread knowledge to their parents. Students went to the community and asked passengers not to litter and to follow traffic regulations. The new school playground was also open to the community. Some fathers quit smoking.

School 9

School 9 was a high school in the center of a major city. The school had chosen psychological health as its entry point, and many people talked about psychological care and told us stories as examples. Teachers analyzed the causes of students' problems and then developed solutions accordingly. For example, a teacher gave a leadership role to a student who felt he lost his superiority. Teachers became like friends of students.

Communication with parents and between parents and children also increased. Children talked with their parents about their school day. One unique feature of this school was the visit to the farmland in which students lived away from their families for 1 week. This gave them an impression of how hard their parents had to work and gave them more appreciation for their parents.

School administrators mentioned as a challenge that in the current semester no student had come yet to the consulting room. When we talked with students, we learned that students feared that other students would laugh at them if they entered the consulting room, the entrance of which was in an obvious location.

The most frequently mentioned activities were psychological consultations (17 quotations) and psychological care (14 quotations), as well as social skills activities (12 quotations) and communication with parents (12 quotations). Many people also mentioned improved school facilities (30 quotations) and a harmonious school environment (13 quotations). We heard about new and interactive teaching methods (18 quotations), having health as a priority (15 quotations), and popularizing of knowledge (13 quotations). In terms of changes in individuals, many talked about having a broader concept of health (30 quotations), paying attention to health (13 quotations), and having teachers as friends (13 quotations). The most frequently mentioned behavior change was increased adaptability or social skills (12 quotations). The most frequently mentioned challenge was a need for continued efforts and expansion (9 quotations).

This school made many modifications of *school health policies*. The school made some of its policies more specific, and it created some new policies (e.g., policies on prevention, first aid, psychological health education, hygiene in dining room). One policy established 15 minutes every day for students to talk about what happened in the day. The principal put “health is a priority” as a schooling principle. To improve the *physical school environment* this school had newly decorated rooms, improved kitchen and dining facilities to meet WHO standard, facilities for physical exercise, and separate toilets. The campus was more beautiful and cleaner. Regarding the *psycho-social school environment*, teachers helped students in their spare time, and students helped each other and reached out to the poor. There were harmonious relationships among students and between teachers and students. Teachers and students became like friends. *Health*

education was combined with the subjects that teachers taught. There were workshops about psychological health.

For *health services*, School 9 also did annual body checks. For *nutrition services*, this school offered “dinners full of nutrition.” Regarding *counseling/mental health services*, they decorated and rebuilt their consulting room and opened a hotline. A main responsibility of teachers was to solve psychological problems. Psychological health and training for teachers was also addressed, including psychological consultation for teachers. Administrators tried to think from the other side and put themselves in others’ shoes when facing problems. For *physical activity*, this school also participated in basketball matches. Regarding *health promotion for staff*, the principal, who used to take the bus, now walked to and from school, and many teachers followed suit. The principal also quit smoking to set a good example. Through a survey, this school noticed that teachers had psychological problems because of too much pressure; consequently they paid more attention to psychological consulting for teachers. A teacher reported more satisfaction with his work now. *Outreach to parents and communities* included communication with parents through home visits, telephoning, letters, and Internet. Teachers discussed with students first what they wanted to share with their parents. There were also teacher-parent conferences and parents’ meetings, encouraging more communication between parents and students. The school asked for relatives of parents to join. The school administration extended participation in various HPS activities across the society to influence the surrounding areas.

Reflection

As these examples show, schools implemented comprehensive interventions that addressed about all of the components of a Health-Promoting School and used the full organizational potential of the schools. (While schools might not have mentioned some of the HPS components during the interviews, this does not necessarily mean that the schools did not address the components.) Thus, unlike the studies by Lynagh, Schofield & Sanson-Fisher (1997) and Stewart-Brown (2006), that showed that none of the programs incorporated all five components of the Ottawa Charter in the HPS approach, this study showed that the visited schools in Zhejiang Province addressed virtually all of the components of the Ottawa Charter at school level (policy, supportive environment, community action, personal skills, health services). A study in Russia that also focused on process rather than outcomes, similar to the design of this study, recently reported that schools set up comprehensive, whole school programs (Weare, 2005).

The component least often specifically addressed was health promotion for school staff. This is somewhat in contrast to the Anschub.de project for good and healthy schools in Germany, initiated by the Bertelsmann Foundation (www.anschub.de), in which health promotion for teachers, especially stress reduction and relaxation for staff, played a major role. On the other hand, the HPS project in Zhejiang Province showed powerful self-reported effects of reducing smoking in teachers, some of whom had smoked for decades. In the past, researchers have conducted fewer studies about health programs for school staff, as compared to health programs for students. Recently, an article by a team of authors from the United States reviewed benefits of school health programs for school employees and described actions to build or improve health

programs for school employees (Kolbe et al., 2005). Perhaps this is a start to paying more attention to the health benefits of Health-Promoting Schools for teachers and school staff.

Besides addressing all HPS components, there were additional beneficial changes. Schools in Zhejiang Province also engaged various people in developing Health-Promoting Schools, as suggested by the HPS framework. School health efforts were developed and implemented jointly by administrators, teachers, and students and often involved parents and community members. The Problem Solving for Better Health (PBSH) and HPS project in Rio de Janeiro, Brazil, also reported on participatory planning. “It allowed participants—directors, advisors, and teachers—to prioritise and analyse problems and resources in their schools, systematically creating intervention projects to solve them” (Becker, Edmundo, Bonatto, Ferreira do Nascimento, & dos Santos Silva, 2005, p. 165). While it appeared that the participation in Rio de Janeiro went to a deeper level of broader program planning, the participation in Zhejiang Province seemed to be more at the level of specific intervention planning. However, it was a good start to implementing a new approach in a different political system.

Health-Promoting Schools and health concept

WHO's definition of the comprehensive school health concept of Health-Promoting Schools is included in Figure 1 (page 30). To look in more detail into the descriptions that many participants gave of their HPS concept, their responses were coded by the following 10 components of a Health-Promoting School: community outreach, counseling/mental health, health education, health services, nutrition, physical education/exercise, physical environment, policy, psycho-social environment, staff health

promotion. (From the HPS concept in Figure 1 which includes eight components, “healthy environment” was split into “physical environment” and “psycho-social environment” because these two environments are distinct and addressed separately as “hardware” and “software” in China. “School policy,” which is part of the FRESH model, was also added.) The components that were most frequently included in the responses were, in descending order: health education ($n = 49$), physical environment ($n = 43$), psycho-social environment ($n = 31$), and policy ($n = 31$). These are also the core components of the FRESH framework, except for health and nutrition services, which were not part of the frequent responses in Zhejiang Province. Thus, participants in the schools in this study most often associated the concept of a Health-Promoting School with knowledge about health (health education), a beautiful and clean school environment (physical environment), a harmonious and comfortable atmosphere (psycho-social school environment), and rules and requirements that call for all of this (school policy).

As these examples imply, except sometimes for environment, participants often did not explicitly mention the names of the HPS components in their responses, but they described the components. For example, for health education, participants often stated that the school would give students (and, in some cases, other participants) enough knowledge and skills about health or a better understanding of the concept of health. Under school policy, which was itself mentioned infrequently, a wide range of responses indicated systematic change according to the HPS model, such as having a health model or module that includes a balance of physical and mental health; having students, parents, family, and community participate together to promote health; and promoting the concept

of health and making it a priority. Thus, the names associated with the HPS components in Zhejiang Province might indicate that the concepts of the components might be viewed slightly differently in non-Western cultures, recognizing also that the HPS concept is intended to be adapted by regions and countries or that the difference could just be a matter of interpretation or translation.

Four components of the HPS concept were least frequently mentioned: nutrition ($n = 3$), health services ($n = 7$), physical education/exercise ($n = 8$), and health promotion for staff ($n = 11$). However, this did not correspond with a lack of attention to the implementation of these components.

Since not all responses fit neatly into the given HPS categories, I created a new code, “other aspects” ($n = 30$), when analyzing the responses about the HPS concept. Aspects mentioned under this new code included that Health-Promoting Schools will promote the physical and psychological (and social) health and development of students (and other participants). Additional aspects in the responses from Zhejiang were that Health-Promoting Schools are a joint effort of students, teachers, families, and communities, and involve a variety of activities. These aspects are also included in the long definition of HPS from WHO (see Figure 1) (page 30), but not specifically in the descriptions of the components.

In Schools 4, 5, 6, and 8 school administrators gave the most comprehensive picture of the HPS concept. (In Schools 1–3, 7, and 9 we did not ask administrators about the HPS concept.) In School 4, administrators mentioned during the interview all of the 10 components of Health-Promoting Schools when asked what a school would be like when it achieves becoming a Health-Promoting School; most frequently they talked

about community outreach and health education ($n = 3$ each). In School 6, administrators talked about seven components of Health-Promoting Schools in response to the same question (all except nutrition, psycho-social environment, and staff health promotion). In Schools 5 and 8, administrators talked about five components of a Health-Promoting School (for both schools: health education, community outreach, psycho-social environment; School 5: plus counseling/mental health, physical environment; School 8: plus policy, physical environment). In Schools 4, 5, and 6, teachers gave the next most comprehensive picture of Health-Promoting Schools, after administrators.

After this detailed look at how schools in Zhejiang Province addressed the components of the HPS framework—the basis for the intervention—the next part of this chapter briefly examines how the schools addressed the Success Factors of school health programs.

Success Factors of School Health Programs (Success Factor Framework)

This framework addresses nine factors that researchers have shown are associated with desirable results in school health programs, as reviewed in Chapter 1. These Success Factors include: gaining commitment, theoretical underpinning, multi-strategies, relevance, teacher training, participatory methods, relevant content, time and sequence, and participation. The factors of this framework partially overlap with and complement the previously discussed frameworks.

Gaining commitment

Commitment was important at the school level—from the principal—and at the governmental level—from the education and health bureau. Particularly Schools 1, 4, 6, 7, 8, and 9 reported that they received strong support and financial support from the municipal government. In some instances, such as School 4, administrators had to try to win the support from the government. In addition, support from the principal was crucial, as reported above in the Change Framework under “Leadership skills.” In many cases, it was most challenging to gain the support of parents as they feared health interventions could deter from academic learning.

Theoretical underpinnings

The interventions were based on the theoretical underpinnings of the HPS framework (introduced in Chapter 1). This required that participants first became familiar with the HPS concept through workshops, studying WHO and CDC HPS materials, and visiting Health-Promoting Schools. While the interventions addressed virtually all HPS components, as reported above, and the understanding of the concept of health and Health-Promoting Schools was broad during the last round of school interviews, as reported earlier—which points to a good basic understanding of the concepts—participants also expressed a need for more professional development and technical support related to theoretical underpinnings.

Content of programs

The content of HPS programs was chosen for various reasons such as people's awareness and knowledge, previous surveys, students' condition and development, and school's condition. Schools chose their entry points because of a lack of people's awareness and knowledge (e.g., about healthy nutrition, injury prevention), previous surveys (e.g., a governmental and school survey showing disappointing results about nutrition, trend of increasing accidents off-campus), students' condition (e.g., students not having a good habit of balanced nutrition, nutrition deficiencies and overweight, students experiencing psychological pressure), school's condition (e.g., students and teachers experiencing pressure and stress), adolescence being an important developmental period, other health topics already being addressed, or the school already having a good foundation (i.e. experience) in addressing the chosen entry point. Often schools had various reasons. For example, School 4 chose tobacco control as its entry point because their city had a heavy consumption of cigarettes, previously, no students smoked, but some had started to smoke, and school leaders knew that smoking greatly impacts both physical health and economics. However, schools did not seem to use the results of WHO-required surveys for determining the content of the interventions, except in one case.

Methods

Schools used some new and participatory learning methods in which students were more actively involved. For example, methods included encouraging students to talk about their own experiences and opinions, students conducting research and raising

questions, group discussions and group activities, case studies, and students' speeches and drawings. This was especially remarkable because Chinese schools traditionally relied on passive learning methods, as reported in Chapter 1. Schools also used participatory activities to teach social skills or life skills such as how to handle interpersonal relations. Some students persuaded fathers and grandfathers to stop smoking. There were special writing, calligraphy, drawing, and knowledge competitions about health topics, and some schools had arts days and other festivals in which students could show their talents. Some of the schools developed new textbooks or made modifications to books.

Timing and sequence

Schools developed work plans in which they specified the timing and sequence of major activities. Schools had special activities for health promotion, and they integrated health topics into regular teaching in many class subjects. However, we did not see a plan with a range of activities over the full set of school years—based on students' developmental levels and in a sequence that would build upon the learning experiences previously provided. Such plans might or might not have existed.

Multi-strategy for maximum outcomes

Schools implemented a variety of activities. As reported above, schools addressed virtually all components of the HPS model and Ottawa Charter. As far as we could tell, these activities were coordinated to address the chosen health topics.

Teacher training and professional development

Teacher training and professional development started with learning the HPS concept, as reported under the Change Framework under “team training.” Additional training included principals acting as role models for healthy behavior, training through experts, study visits to other Health-Promoting Schools, and brainstorming among teachers. The frequently mentioned lack of knowledge, skills, and experience, and the need for technical support and qualified staff, supports the crucial importance of teacher training and points to a potential lack of sufficient training.

Relevance

This supplements the information above on choosing the content of programs. Schools chose interventions based on various factors such as the requirements of the project, expected result, feasibility, daily work condition, matching the features or actual situation of the school, students’ development, and administrators’ experience. Schools also selected class topics for a variety of other reasons. These reasons included: economic development (e.g., the city being a cigarette manufacturing city, more economic development necessitating the need for environmental protection, mental health being important for the future development of the whole society); health condition (e.g., age of smokers getting younger, nutrition affecting students’ physical condition, family members smoking, SARS and chicken flu spreading in their country); and development and actual situation of students (e.g., students’ preferring to talk rather than to listen,

students going through physical and psychological development, and wanting to encourage students to participate). Thus, program planners considered a wide range of factors for determining relevance.

Participation

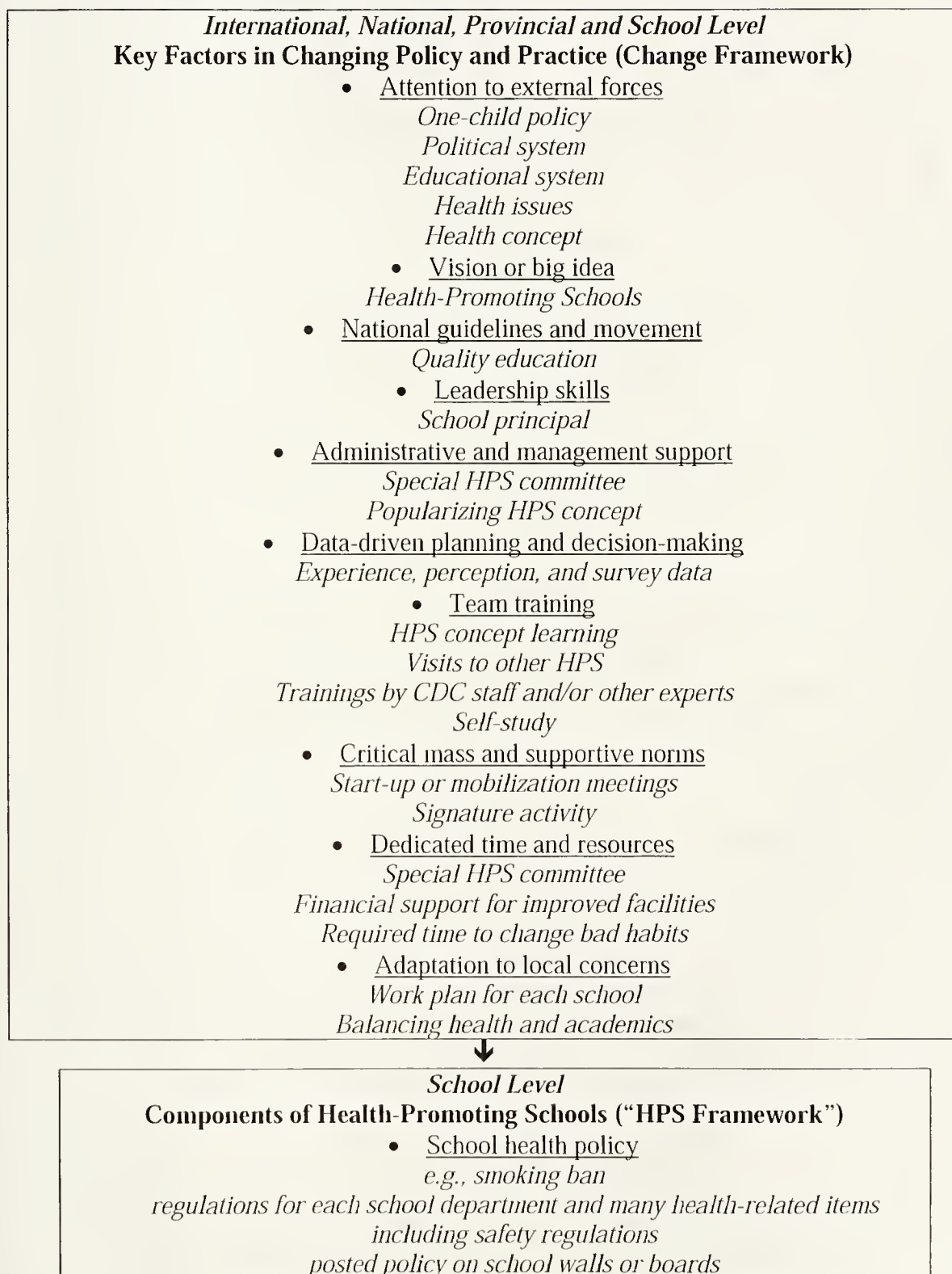
Cooperating with and participation from parents and communities were important aspects. For example, School 5 parents and community members were reportedly involved in planning and implementing the project. Some parents of School 4 mentioned that they tried to cooperate with the school and persuaded some of their neighbors and relatives and their friends to “know about health promotion.”

Students and teachers also took active parts in the project. Students passed out health information to parents and community members, actively participated in the health promotion activities of their school, and formed good habits. Schools elected some students to be health ambassadors. Some teachers stopped smoking, exercised more, walked more, and/or wore helmets on motorbikes.

Reflection

As these examples show, the HPS project in Zhejiang Province overall utilized and thus confirmed these Success Factors of school health programs. Nevertheless, the HPS project in Zhejiang was not a perfect case study (as probably hardly any case study would be). There were also numerous limitations that need to be taken into consideration. These will be addressed in the next section.

Figure 9. Summary of theoretical data analysis



handbook for student behavior

- Physical school environment

*e.g., improved facilities, including dining room, dormitories, sports facilities
multimedia classroom*

improved sanitation facilities and reduced littering

green, clean and beautiful school environment

meeting WHO and national standards

- Psycho-social school environment

e.g., teachers and students became friends

harmonious relationships

equal treatment

student support groups

- Health education

e.g., integrating health into regular teaching

special health education classes

drawing and writing competitions

professionals gave lectures, workshops

- Health services

e.g., annual medical check-ups for students and staff

prevention and treatment for common diseases

doctors on duty

- Nutrition services

e.g., nutritious meals, more food variety

balanced fixed plates

training and advice from nutritionists for kitchen staff

- Counseling/ mental health

e.g., psychological consultation by specially trained teachers

hotline, special mailbox, special consultation room

consultation for teachers

- Physical exercise

e.g., morning exercises

sport matches such as football, basketball, volleyball

improved sports facilities

- Health promotion for staff

e.g., encouraged staff to quit smoking

more exercise and walking

psychological consulting for teachers

- Outreach to families and communities

e.g., distribution of materials, letters to parents

visits and calls to parents' homes

parents' school

increased parent-child communication

students do publicity in the community



Programmatic Level

Success Factors of School Health Programs ("Success Factors")

- Gaining commitment

Municipal government

Principal

Parents

- Theoretical underpinning

Health-Promoting Schools

- Content

Based on students' condition and development, school's condition and development, economic development

- Methods

New and participatory learning methods

- Time and sequence

HPS Work plans

- Multi-strategies

Variety of activities according to HPS framework and Ottawa Charter

- Teacher training

HPS concept learning, training through experts, study visits

More need for training

- Relevance

Based on economic development, health condition, development and actual situation of students

- Participation

Participation of parents and communities

Active participation of students and teachers

The next chapter presents concluding reflections on the strengths and limitations of this study.

Chapter 10. Concluding Reflections

Strengths of the qualitative approach for studying the implementation process of Health-Promoting Schools

This descriptive examination of the HPS project in Zhejiang Province has provided a detailed, and reasonably objective, portrayal of a massive and impressive effort to improve health and education in these schools. The rich data tell a story of the benefits of the HPS model for the children, teachers, and families who were involved. Working through interpreters and translators, this study describes the implementation process in a way that is very informative and can be useful to others who are charged with the implementation of similar programs.

The analysis of this study helped to identify a multi-level conceptual model for implementing change that works in the real world, among schools that vary widely in their resources and specific needs. By examining strengths and weaknesses in this model—in the midst of the stress and strain of real-world implementation—this study can help other professionals fashion similar programs.

While this study could not follow each school over time, and thereby provide rigorous documentation of success, the wealth of anecdotes—suggesting understanding of vital health concepts and positive changes in attitudes and behavior—makes it clear that progress was made in these schools.

Limitations of this Study

There were a number of limitations in the methodological design of the study that were inherent in the complexity of this specific HPS project that could not be avoided. They were part of the real-world realities in which such projects must operate. The limitations to this study were related to the role of the researcher, social desirability bias, language and interpretation/ translation, culture, timing of interventions and surveys, study design, and self-reporting.

Role of researcher

Particularly in qualitative research, it is important to consider the role that the researcher plays. While researchers aim to maintain scientific objectivity, this is not entirely possible since researchers take on a “situational identity:” Researchers observe conditions by who they are as a person, and different personalities of researchers might well stimulate very different sets of interactions and lead to different sets of observations and different conclusions (Angrosino & Mays de Perez, 2000). As Angrosino and Mays de Perez (2000) note, citing Behar (1996), “the observer *never* observes the behavioral event which ‘would have taken place’ in his absence, nor hears an account identical with that which the same narrator would give to another person” (p. 690). Furthermore, interactions always involve the continuous testing by all participants of the conceptions they have of each other and validating the cues generated by others by internal or external criteria (Aldinger, 2005).

It was obvious that my presence played a special role to the colleagues of the HEI who accompanied me during my interviews with study participants. HEI colleagues

commented that they saw that I worked very hard and efficiently, reviewed my notes, and asked questions about survey results. Colleagues said that they admired my accomplishments at my young age. A student from one of the schools wrote to me approximately a year after the interview and said, "Your high level of the professional knowledge and the passion about the health-promoting program did leave a deep impression on me." In one school, a local newspaper reporter came specifically to take pictures of me with the students and the principal for a report in their newspaper. They had already published a picture the day before when I visited the school with my WHO colleague. The new picture was published in a national health promotion newspaper, as I was told. At another school, a TV reporter came and interviewed me. In light of this and other instances, my translator during the first round of data gathering remarked several times that I was being spoiled and the center of attention since schools made special arrangements to have participants talk to me such as holding students or parents beyond regular school hours.

In turn, I felt very privileged to have school administrators, teachers, students, and parents assembled at each school to talk to, so I did not want to be too intrusive or ask questions that might make them feel uncomfortable. Sometimes I felt a bit uncomfortable because participants seemed to want more financial or technical support from WHO, which I was not able or supposed to give. Thus, my role as a researcher definitely influenced the participants as well as my behavior and thus likely influenced the results that I received.

Social desirability bias

A higher tendency for social desirability bias is one of the disadvantages of qualitative research, and this is particularly relevant to key informant interviews and focus groups (Aldinger, 2005).

During many of the group interviews, additional people were present besides those being interviewed—which was understandable because of the high importance attached to our visit. Additional participants included one or more representatives of the HEI, a translator, sometimes additional representatives from the school and/or from the municipal government and CDC, and during the second and third round of data collection a WHO staff member and WHO consultant. During the interview of two school administrators in an elite school, more than 15 people were present: three from the HEI, a translator, two photographers, two representatives from the municipal CDC, about five representatives from the provincial CDC, two representatives from the municipal Health Education Bureau, and two additional school staff. In another school, there were also 15 people in the room, including four student health ambassadors, when we interviewed school administrators. Sometimes those being asked looked at the “authorities” (such as the director or vice-director of the HEI) when answering questions, especially if they did not seem sure what to say initially. For example, in one school, after being asked who decided about the work plan, participants looked at the director of the HEI for an answer and talked back and forth. When asking about the role of the planning committee in developing the work plan, they looked at the WHO consultant.

At least some of the participants seemed to be prepared for the interviews—which was understandable since a visit from “foreign experts”—as we were often

called—was considered very important and probably anybody would want to be prepared for such an occasion. For example, in one school, during an informal question to students, they said they knew their school was a Health-Promoting School, but they could not explain what a Health-Promoting School was. During the interview, students were able to describe a Health-Promoting School. One of the mothers brought in letters that the school sent to parents from several years and a copy of an article that the school nurse wrote about the project in a professional journal. Sometimes it seemed participants wanted to say what they had prepared. On the other hand, the only parent who came to the interview in one school was sometimes unsure what to say or uncomfortable when we asked about activities and she had nothing to report yet. My interpreter took this as a sign for “honest answers” that showed that she had not been trained in advance. In another school, one teacher read from a document when talking about the HPS concept, and in another instance, the principal consulted her notebook while she filled out our written questionnaire. In one school, all the students who participated in the interviews had notes, and in another school, one of the parents acknowledged that he did not make “enough preparations,” because he just came back from work, so he just answered the questions “according to the questionnaire.”

Sometimes people might have responded in a way that was most favorable, or socially desirable. For example, in one school, parents gave a reluctant yes when asked if they had heard about Health-Promoting Schools. On the other hand, they totally agreed with the HPS concept and they thought it was a very good idea. In another school, students were reluctant to respond to a question about the HPS concept; only one spoke.

In another school, parents were reluctant to respond about the HPS concept; only one responded.

As we experienced in one school, people might have felt—understandably—more free to talk about some of the challenges in a less formal setting. As reported earlier, the person in charge of the HPS project in one school talked over lunch about some of his initial challenges.

Thus, social desirability probably played at least a partial role in the answers that we received.

Language and Interpretation/Translation

Language differences and the need for interpretation/translation across languages can contribute to misunderstandings and false interpretations. Miscommunications across cultures might be subtle and hard to detect because of false assumptions about shared meanings. In foreign cultures, words can take on a very different meaning. For example, Patton (2002) found that in Sweden the term *policy* corresponded to the American use of the term *program*. Interpreters often want to be helpful by summarizing and explaining responses. However, using interpreters might contaminate the participant's response with the interpreter's own views, so that the researcher can no longer be sure whose perception is stated. Furthermore, some words or ideas simply cannot be translated directly (Aldinger, 2005).

I felt I missed so much without being able to speak and understand Mandarin Chinese and without being able to read the many documents that would have been available to review in Chinese at each school and at the summing up conference.

Sometimes I felt illiterate. At least in one instance, the interpreter acknowledged that there was no English equivalent word to translate (e.g., for a person who was responsible for training the “quality of students”).

On the other hand, some of the parents in rural areas were not literate in Mandarin Chinese, either. Teachers helped explain the questions to them and helped them to respond. Thus, some parents also needed an interpreter.

The interpreters who accompanied us for the school interviews were hired by the HEI. We had a different interpreter for each round of interviews. Initially, the interpreters were not familiar with the HPS concept.

Thus, my lack of competency in Chinese language was a limitation to the depth and accuracy of data that I could obtain.

Culture

“Culture is a way of life a number of people have in common” (Macionis, 1989, p. 62). It can be defined as “the beliefs, values, behavior, and material objects shared by a particular people” (Macionis, 1989, p. 62). There are many aspects of cultural differences that can influence the gathering and understanding of data such as the difference between individualism and collectivism, values, greetings, nonverbal communication, levels of politeness, direct and indirect talk, distribution of power, rank and formality, and power differentials (Aldinger, 2005).

During data collection, sometimes it was difficult to get an answer to specific questions. During the very first interview we asked some of the questions several times, (e.g., if they used data to select the entry point), but did not receive answers specific to

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the question. The principal said that they did not understand my language. A similar instance happened to my WHO colleague at a later time (e.g., when he asked what help schools received from the provincial level, local level, and from the government). A few times, people got into a big discussion when they did not seem to be sure what to answer (e.g., when asked about conducting the WHO-required surveys), and we realized we should move on to the next question.

The interpreter at the third round of data collection acknowledged that participants did not always provide answers to the specific questions, but might have said what they had previously prepared. The interpreter also informed us that it was not common in China to talk in details and give specific examples, so what we asked for in the interviews was unusual for people in China. For example, at a job interview with Chinese companies, the interpreter told us, applicants are basically asked “What have you done when?” In contrast, at a job interview with an international corporation in China, applicants are asked questions such as, “What were your greatest achievements? What were your greatest challenges and how did you handle them?” In one school, one of the participants acknowledged that the questions in which we asked for specific details were “new” for them, and helpful. It showed them a different way of reporting.

Thus, there were definitely some cultural differences that played a role in data gathering and in answering our questions.

Pre-existing activities

In many instances, we became aware that respondents reported about activities that were conducted before their school became a Health-Promoting School. It was not

always possible to determine precisely which activities had been started since the beginning of the HPS project, and which were already in place or enhanced. Even though our questions asked for activities that had been implemented since the HPS project started, in some instances we asked follow-up questions and learned that the reported activities had already been in place before the school became a Health-Promoting School. This showed that some schools already had components in place that are part of Health-Promoting Schools, such as outreach to communities or psychological counseling. Some schools reported clearly that activities had started before the HPS project began. For example, School 3 reported already having psychological consultations for 7–8 years; School 4 reported having had a network for psychological health education “for many years”; School 7 reported already special caring for children whose parents’ worked in another town before the HPS project, and School 9 reported having a system of politeness education since 1994.

Perhaps because some of the components were already established, the HPS project was a good complement that could build on a solid foundation, and the schools in Zhejiang Province were able to implement a comprehensive set of HPS interventions within a short period of time, which is rare in the international literature. However, it also means that some of the activities reported here might not have been established particularly in response to establishing Health-Promoting Schools, but might have already been in place. In some instances respondents told us that it was hard to find ways to make an intervention better if interventions have already been in place previously. According to participants’ reporting at an elite school at the beginning of the project, I wondered if the school was not already able to qualify for a Bronze Medal at the outset.

Thus, the extent of pre-existing activities could not always be determined, and they might not have been perceived or described as such, but it was apparent that some pre-existing activities were integrated into the HPS project.

Timing of interventions and surveys

We also noted that the WHO-required baseline surveys were in some instances conducted after the project had already started. This could potentially diminish the effect that could be shown at post-test. Therefore, this study does not focus on the quantitative data that was also collected during this project.

In addition, the length of interventions might have differed between the various schools. One school in this study seemed to have started late with the interventions since they had their starting conference in October 2004, while the initial training was 1 year earlier.

Thus, timing issues likely played a role as a limitation though would have been even more significant in a quantitative study.

Study design

Initially, we planned to interview at the same three schools at three different time intervals. This was considered “very inconvenient” by our Chinese colleagues. Our visit was probably important for advocacy for the project at the municipal government and at the community level, and leaders likely considered that it was more equitable to give this privilege to more than three schools—judging from the many pictures that people took of

us during our visits and the number of media reporters that talked to us. Consequently, we adjusted the study design to interview at different schools at each interval.

The HEI selected the schools for the interviews. In the municipality of School 2 we learned that several schools applied to be interviewed. While we did not ask specifically how the participants for the interviews were chosen, it would be understandable that those had been chosen where those who had the most favorable examples to share.

Thus, we had to be flexible with the study design to accommodate the actual situation. This study cannot, therefore, make a claim that the understanding of the HPS concept improved over time since we measured at different schools at different time intervals. However, we can note a trend between the various rounds of data collection. In addition, Health-Promoting Schools is a comprehensive concept with various components. The quality of interventions and “fidelity” of implementation likely differed among schools. Assessing this in detail would have required longer visits and additional analyses.

Self-reporting

As already acknowledged, all of these data are self-reported. However, major school health surveys such as the Youth Risk Behavior Surveillance (YRBS) and the GSHS also depend on self-reporting. As in these major surveys, it is difficult to verify the data. It would have been especially valuable to be able to verify with those who claimed they stopped smoking after decades since smoking is an addictive behavior that is reportedly difficult to stop.

Talking to various groups of people and at various schools theoretically allowed for triangulation of data in this study. However, some of the limitations reported above, such as preparation of participants, could potentially diminish or eliminate the triangulation effect. This study design was based on what was feasible in the given situation.

Recommendations for future studies

Based on these limitations (summarized in Figure 10) (page 415), it would be beneficial for future research that the researcher be literate in the local language. It should be made clear which interventions have already been in place and which have been newly established. It needs to be assured that baseline surveys are taken before any interventions are being conducted. If possible, it would be desirable that the researcher stay with the target population for a longer period of time. This would enable him or her to also converse with the target population in less formal settings, including with those who do not participate in the interviews, to make more observations, and review additional documents. This would likely take more time and make the study design even more complex. Future research may compare the detailed process of establishing Health-Promoting Schools in China with establishing Health-Promoting Schools in other countries.

Figure 10. Summary of limitations and recommendations

Limitations and Recommendations
<ul style="list-style-type: none"> • <u>Role of researcher</u> <i>People treated me very well, "spoiled" me</i> <i>Did not want to ask uncomfortable questions</i>
<ul style="list-style-type: none"> • <u>Social desirability bias</u> <i>People in authority were present at interview</i> <i>Some participants prepared ahead of time or were reluctant to answer</i>
<ul style="list-style-type: none"> • <u>Language and interpretation/translation</u> <i>Missed much without being able to speak Mandarin</i> <i>Some parents could not speak Mandarin</i> <i>Different interpreter at each round of data collection</i>
<ul style="list-style-type: none"> • <u>Culture</u> <i>Difficult to get answers to specific questions</i> <i>Giving specific answers was unusual in China</i>
<ul style="list-style-type: none"> • <u>Pre-existing activities</u> <i>Some relevant activities were already in place before the HPS project</i>
<ul style="list-style-type: none"> • <u>Timing of interventions and surveys</u> <i>Some baseline surveys were conducted after activities had started</i> <i>Length of interventions might have differed</i>
<ul style="list-style-type: none"> • <u>Study design</u> <i>Needed to adjust research protocol to real world situation</i> <i>Schools and interviewees selected without our control</i> <i>Potential differences in quality and fidelity of interventions</i>
<ul style="list-style-type: none"> • <u>Self-reporting</u> <i>Data based on self-reporting</i> <i>Limits to triangulation</i>
<ul style="list-style-type: none"> • <u>Recommendations</u> <i>Researcher to be literate in local language and to stay longer with target population</i> <i>Make clear which interventions were already in place</i> <i>Conduct baseline survey before interventions start</i> <i>Compare this study with HPS in other countries</i>

What this study has shown about the feasibility and efficacy of the HPS model

Despite these limitations, this study clearly showed, and described in great detail, that it was feasible and efficient to implement the HPS project in Zhejiang Province, China, even though schools focused on different health issues and had different levels of resources.

Factors that contributed to the success of this project included: sincere commitment, flexibility of the HPS model to adapt to school-specific circumstances, integrating pre-existing activities into a comprehensive model, the government mandate of quality education and the one-child policy, and decentralized government structure. Factors that can be strengthened in subsequent program implementation include increased training and professional development and data-based decision making.

Factors contributing to the success of this project

It is clear from the descriptive data that government officials, administrators, teachers, school staff, students, and parents were sincerely committed to improving the health status and all-around development of their communities. They felt ownership in valuing their schools as a community and were committed to working together to improve it.

The portrait of nine schools participating in this project illustrates the vast differences in health-related issues and resources among communities in Zhejiang Province. As a consequence, each school needed to focus on different issues in order to

achieve necessary site-specific changes. The HPS model could be adapted for each school.

One of the added values of the HPS project might be that it helped schools build on pre-existing activities, linked them to the health promotion effort in a systematic way, and thus provided a feasible model for a comprehensive approach for promoting health and improving the efficiency and satisfaction of studies.

Several of the success factors were related to the macro environment, such as the mandate for quality education, the one-child policy, and the decentralized system of government with clear mandates.

The recent mandate from the Chinese government for quality education calls for a holistic approach to child development and education. The WHO HPS model provided a useful structure for implementing these changes. Parents and teachers came to value the whole child's development and its implications for learning.

The one-child policy, while placing great pressure on the one child to perform well academically, also gave the single child a special role as a change agent in his or her family, convincing the members of his or her family of health-conducive behaviors, such as the need to stop smoking. This was supported by the fact that many parents had low levels of education and were eager to learn.

The decentralized system of government ensured that government officials were placed at every level in the province, in cities, and schools and could ensure that priority was given to the HPS project.

Factors that can be strengthened

It is clear from the interview data that there was a definite need for more training and professional development in health promotion concepts, knowledge, skills, and experiences about Health-Promoting Schools and related issues.

It also emerged that participants did not always use public health surveillance data for decision-making, and did not seem to know how to utilize the data gathered from the WHO-required surveys. While participants did have a range of reasonable arguments for choosing their entry points and interventions, this also points to a specific need to train the staff responsible for implementing interventions to use survey data, such as the WHO-required surveys, for decision-making in health promotion.

In conclusion, this study provided a detailed account of the feasibility and efficiency of the HPS project in Zhejiang Province, China. The detailed processes of implementation steps and types of interventions can inform policymakers and practitioners in other provinces and nations who implement HPS projects, the challenges and limitations can point to issues that those who implement such programs in the future should be aware of and, if possible, address ahead of time, and the wide range of self-reported changes in knowledge, attitudes, and behaviors among those who participated can be a motivating factor of what can be achieved through such a program.

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Appendices

Appendix 1

Draft Protocol for School Visits for Qualitative Evaluation

in Zhejiang Province HPS Project, China – June 2004

Criteria for school selection:

- One school in a resource-poor area
- One school in a resource-rich area
- One former pilot school

Participants from each school:

- 1–2 school administrators (e.g., principal, vice principal)
- 4–6 teachers (from different subject areas, including health) and/or other implementers*
- 4–6 students (from different grade levels)*
- 4–6 parents (from different socio-economic backgrounds)*

* to be selected by the schools, consisting of a mixture of males and females

(ask schools how they selected participants?)

Observations

Observe school environment in regard to the components of a Health-Promoting School (HPS):

- School health policies (e.g., is a policy posted? What does it address?)
- Skills-based health education (e.g., observe a class; what materials/activities are being used?)
- Healthy school environment, starting with water and sanitation (e.g., observe/describe sanitation facilities)
- School health services (e.g., what services are provided; what equipment is available; training of health care providers)
- School nutrition services (e.g., what foods are provided at school; equipment available in cafeteria and dining room)
- Mental health services (e.g., what services are provided; what setting)
- Physical education (e.g., what “equipment” is available such as tracks; are students exercising between classes)
- Outreach to families and communities (e.g., how do schools reach out? How are parents and community members involved? Possibly look at albums with pictures)
- Health promotion for staff (e.g., in which health activities are staff involved; what is offered for them)

Protocols

Overall guiding questions

- How does a school become a Health-Promoting School (HPS)?
- What are the experiences and challenges for school administrators, teachers and other implementers, students, and parents to put the HPS concept into reality in Zhejiang Province, China?

Opening the meeting

- Introduce myself and translator, explaining the roles we both will play.
- Thank the participants for their time and cooperation.
- Explain that the session is meant to gather experiences and opinions for the purpose of strengthening the implementation of the HPS project.
- Explain that this is part of the WHO project and also part of Carmen's Ph.D. research.
- Point out that each participant's experience and opinion is important, that there are no right or wrong answers, and that they should feel comfortable to express themselves on the topics discussed, but that they don't need to answer if they don't feel comfortable (their participation is voluntary).
- Ensure that answers will be reported anonymously.
- Ensure that they understand all of this and agree with it.
- Ask if it is all right to tape-record the session. The tape may or may not be transcribed later.
- Ask them if they have any questions.

Note: The following questions will serve as a starting point for conversations that can lead to other related questions. We are providing these questions so that respondents can feel prepared for the general subject area of the conversations.

For School Administrators/ Teachers and other implementers

- What is your position at this school? What are you responsible for/what subjects do you teach? How long have you been working in this position/in this school?

Questions re: the chain of events from “here” to “there”

- What health topic has your school selected as an entry point? How was that topic selected? (Which information did you base this decision on?) Who was involved in the decision-making process? How do you feel about this choice for entry point?
- Will you address more than one health topic? Which one(s)? Why?
- What do you hope to achieve in regard to making this school a Health-Promoting School?
- Create a *product* (i.e., *picture*). Describe what you hope to achieve [After] and what is [Before] and then discuss what has to happen in the middle [process] and possible

problems [challenges] and which individuals [players] engage in this process.

- Look at each component of a Health-Promoting School.

- Or: present a *model* of the HPS concept that is used globally and ask: Can you help me talk about these components and what you are doing or planning to do?

Questions re: factors/challenges in implementation

- What has happened since the launching workshop in October to start preparing your school to become a Health-Promoting School?
- Which of the surveys have been conducted at your school (GSHS, PSE, HPS)? What was your role in filling out the surveys? (Ask about selected questions from PSE.)
- Have you seen the results of the GSHS and PSE for your school? What do these mean to you? What will you do with this information (when you receive it)?
- Does your school have an HPS planning committee? Who is part of the planning committee? How were these people chosen? What are their roles?
- Does your school have a work plan developed (or will it develop a work plan)? Who was (or will be) involved in developing this work plan? How did (or will) you decide what to include?
- Can we look at the work plan and can you explain to me what your school will do? Who will do what?
- What will be your role? What preparation will you need to fulfill this role? How will you get this preparation? How do you feel about your role?

- For teachers: How do you choose what topics to address and which methods to use?
Why?
- What challenges do you expect? How could they be handled?
- What will be the most important thing to make the plan work?

Questions re: understanding of the HPS concept

- Who made the decision that your school will become a Health-Promoting School?
Where do the resources come from?
- Can you describe to me what you think a Health-Promoting School is? (How can you identify a Health-Promoting School?)
- How did you learn about the HPS concept? From whom?
- What do you think about the HPS concept? Why?
- How do you feel about your school becoming a Health-Promoting School?

For Students

- In which grade levels are you? How long have you been in this school?
- Have you heard of Health-Promoting Schools? From whom did you hear it? Can you describe what a Health-Promoting School is?
- How do you feel about your school becoming a Health-Promoting School? Why? What does it mean to you?
- Do you know on which health topic your school will focus first? How do you feel about it?
- Do you know if any students are part of the working committee that plans the new health activities? If so, what is their role? What does this mean to you? (Or, would you like to be involved? Why or why not? How would you like to be involved?)
- Create a *product (i.e., picture)*. Describe what you hope to achieve [After] what is [Before] and then discuss what has to happen in the middle [process] and possible problems [challenges] and which individuals [players] engage in this process.
 - Look at each component of a Health-Promoting School.
- What challenges do you expect? How could they be handled?
- Which new activities have you done at school since April/May when the health interventions started? What do you think about them?

Possibly: Have you filled out the GSHS? How did you know how to respond to (selected questions)? What did this survey mean to you?

For Parents

- How many children do you have at this school (if appropriate)? How long have you been associated with this school? How do you usually interact with your child's school?
- Have you heard of Health-Promoting Schools? From whom did you hear it? Can you describe what a Health-Promoting School is? (If they haven't heard, describe the concept briefly.)
- How do you feel about your child's school becoming a Health-Promoting School? Why? What does it mean to you?
- Do you know what priority health topic your child's school selected to address first? (Or, which topic do you think should be selected?) How do you feel about it?
- Do you know if parents are involved in an HPS planning committee that plans the new activities? How did they get involved? (Or, would you like to get involved? Why or why not?) What is your role in it? (Or, what role would you like to have?) What does this mean to you?
- Create a *product* (i.e., *picture*). Describe what you hope to achieve [After] and what is [Before] and then discuss what has to happen in the middle [process] and possible problems [challenges] and which individuals [players] engage in this process.
 - Look at each component of a Health-Promoting School.
- What challenges do you expect? How could they be handled?

- Which new activities have you been involved in at your child's school since April/May when the health interventions started? What do you think about them?

Ending the session

- Explain that the session is about to end and ask participants if they have any final comments or questions.
- Thank all participants for their contributions.
- Alert participants to next visit in October which may include a summary of today's discussion which they may be asked to verify to make sure we understood the information correctly.

Appendix 2

Draft Protocol for School Visits for Qualitative Evaluation in Zhejiang Province HPS Project, China – November 2004

Ideally, the following criteria would be applied to select schools and participants:

Criteria for school selection:

- One school in a resource-poor area
- One school in a resource-rich area
- One former pilot school

Participant groups from each school:

- 1–2 school administrators (e.g., principal, vice principal)
- 4–6 teachers (from different subject areas, including health) and/or other implementers (e.g., nurse, cafeteria manager, counselor)*
- 4–6 students (from different grade levels)*
- 4–6 parents (from different socio-economic backgrounds)*

* to be selected by the schools, consisting of a mixture of males and females

Tour of schools

Observations

Observe school environment in regard to the components of a Health-Promoting School and ask relevant questions:

- School health policies (e.g., is a policy posted? what does it address?)
- Skills-based health education (e.g., observe a class; what materials/activities are being used? what topics are being addressed?)
- Healthy school environment, starting with water and sanitation (e.g., observe/describe sanitation facilities; what modifications have been made to school environment?)
- School health services (e.g., what services are provided; what equipment is available; what training of health care providers)
- School nutrition services (e.g., what foods are provided at school; equipment available in cafeteria and dining room; source of menu; training of cooks)
- Mental health services (e.g., what services are provided, what setting)
- Physical education (e.g., what 'equipment' is available, are students exercising between classes)
- Outreach to families and communities (e.g., how do schools reach out? how are parents and community members involved? possibly look at albums with pictures)
- Health promotion for staff (e.g., in which health activities are staff involved; what is offered for them and how)

Protocols for interviews

Overall guiding questions to keep in mind:

- How does a school become a Health-Promoting School?
- What are the experiences and challenges for school administrators, teachers and other implementers, students, and parents to put the HPS concept into reality in Zhejiang Province, China?

Opening the meeting

- Introduce myself and translator, explaining the roles we will play.
- Thank the participants for their time and cooperation.
- Explain that the session is meant to gather experiences and opinions for the purpose of strengthening the implementation of Health-Promoting Schools.
- Explain that this is part of the WHO project.
- Point out that each participant's experience and opinion is important, that there are no right or wrong answers, and that they should feel comfortable to express themselves on the topics discussed, but that they don't need to answer if they don't feel comfortable (their participation is voluntary).
- Ensure that answers will be reported anonymously.
- Ensure that they understand all of this and agree with it.
- Ask if it is all right to tape-record the session. The tape may or may not be transcribed later.
- Ask them if they have any questions.

Note: The following questions will serve as a starting point for conversations that can lead to other related questions.

For School Administrators

- What is your position at this school?

Questions re: HPS concept

- One of the objectives of this project is to help each school become a Health-Promoting School. Please tell me what your school will be like if it fully achieves what you want it to achieve in becoming a Health-Promoting School.

(**Probing:** Four basic components: school health policies, skills-based health education, a health supportive physical and psycho-social environment, and school health services; a collaborative process involving administrative personnel, teachers, students, parents, and community representatives.)

If first time visit at a school—POSSIBLY ASK SOME OF THESE QUESTIONS:

Questions re: Planning

- What health topic (or topics) has your school selected as an entry point? How was that topic selected?
- Does your school have an HPS planning committee? Who is part of the planning committee? How were these people chosen? What are their roles?
- Does your school have a work plan to become a Health-Promoting School? Who was (or will be) involved in developing this work plan? How did (or will) you decide what to include?
- (If not already available) Can we get a copy of the work plan? What does it address?

Questions re: Implementation

- Which interventions have been implemented since last November?
- How were these interventions chosen? Why were they chosen?

(Probing: What has been done in regard to school policy, skills-based health education, school environment, health and nutrition services, outreach to families and communities, and health promotion for staff?)

- What was your role in selecting and implementing these interventions?

- To what extent do you think these interventions can be (or have been) implemented as planned? Why?
- So far, what has worked well in implementing these interventions?
- What challenges were encountered? How can these challenges be addressed?
- What else can you tell me about what you have learned that would be helpful to others who want to implement effective school health programs?
- Do you have any further comments or questions?

For Teachers

- What grades and subjects do you teach?

Questions re: HPS concept

- Can you describe briefly what you think a Health-Promoting School is? One of the objectives of this project is to help each school become a Health-Promoting School. Please tell me what your school will be like if it fully achieves what you want it to achieve in becoming a Health-Promoting School.

(Briefly:)

- Have you been part of the HPS planning committee? If so, what is your role in the committee?

Questions re: Implementation

- Do teachers choose the health topics that they address with their students? (If relevant), what are some of the topics that you have chosen? Why did you choose these particular topics?
- What interventions have been implemented since last November in support of your effort to make this school a Health-Promoting School?

(**Probing:** What has been done in regard to school policy, skills-based health education, school environment, health and nutrition services, outreach to families and

communities, health promotion for staff? (This question addresses activities that go beyond classroom teaching.)

- So far, what has worked well in implementing these interventions?
- What challenges were encountered? How can these challenges be addressed?
- What teaching and learning materials and methods have you used in your classroom? Have you tried any new teaching and learning methods since last November? If so, what new methods did you try and how well did they work?
- What else can you tell me about what you have learned that would be helpful to others who want to implement effective school health programs?
- Do you have any further comments or questions?

communities, health promotion for staff? (This question addresses activities that go beyond classroom teaching.)

- So far, what has worked well in implementing these interventions?
- What challenges were encountered? How can these challenges be addressed?
- What teaching and learning materials and methods have you used in your classroom? Have you tried any new teaching and learning methods since last November? If so, what new methods did you try and how well did they work?
- What else can you tell me about what you have learned that would be helpful to others who want to implement effective school health programs?
- Do you have any further comments or questions?

For Students

- What grades are you in?

Questions re: HPS concept

- We know you and your teachers, as well as many other people, are working very hard to make your school a Health-Promoting School. What do you think your school will be like when it becomes a Health-Promoting School?

Questions re: Implementation

- What has been done differently in your school since last November to help make your school a Health-Promoting School?

(**Probing:** What has been done in regard to school policy, skills-based health education, school environment, health and nutrition services, outreach to families and communities, health promotion for staff?)

- What (if anything) have you personally done differently since your school became a Health-Promoting School?
- In what ways, if any, are students helping their school to become a Health-Promoting School? To what extent do you think students can help make a difference?

- So far, what went well in your school's effort to become a Health-Promoting School?

To what extent do you think this effort will help improve health?

- What challenges were encountered? How can these challenges be addressed?
- What else can you tell me about what you have learned that would be helpful to others who want to implement effective school health programs?
- Do you have any further comments or questions?

For Parents

- What grade is your child in?

Questions re: HPS concept

- We know many people are working very hard to make your child's school a Health-Promoting School. What do you think this school will be like when it becomes a Health-Promoting School?

Questions re: Implementation

- What has been done since last November to help make your child's school a Health-Promoting School?

(**Probing:** What has been done in regard to school policy, skills-based health education, school environment, health and nutrition services, outreach to families and communities, health promotion for staff?)

- What (if anything) has been different for you personally since your school began working to become a Health-Promoting School?

(**Probing:** Participation in school activities such as "parents' school," receiving communication from the school or your child about health topics, etc.)

- In what ways, if any, are parents helping their school to become a Health-Promoting School? To what extent do you think parents can help make a difference?
- So far, what went well in your school's effort to become a Health-Promoting School? To what extent do you think this effort will help improve health?
- What challenges were encountered? How can these challenges be addressed?
- What else can you tell me about what you have learned that would be helpful to others who want to implement effective school health programs?
- Do you have any further comments or questions?

Appendix 3

Draft Protocol for School Visits, November 2005

Ask Health Education Institute of Zhejiang Province ahead of time:

Please provide:

- PSE, GSHS and entry point baseline survey for the three schools visited on this trip
- Baseline GSHS and recalculated PSE for the schools previously visited and interviewed
- Final evaluation data for all eight schools interviewed, excluding former pilot school:
 - GSHS
 - PSE
 - Entry point survey
 - HPS criteria assessment

For November visit:

- Select 3 schools, preferably at least one in a resource-poor area, for in-depth interviews (four 1-hour group interviews in each school)

Select four groups in each school:

- 2–3 school administrators
- 4–6 teachers (from different subject areas, including health) and/or school doctor/nurse*

- 4–6 students (from different grade levels)*
- 4–6 parents (from different socio-economic backgrounds)*

* please select a mixture of males and females

Protocols

Opening the meeting

- Introduce myself and translator, explaining the roles we both will play.
- Thank the participants for their time and cooperation.
- Explain that the session is meant to gather experiences and opinions for the purpose of strengthening the implementation of Health-Promoting Schools.
- Point out that each participant's opinion is important, that there are no right or wrong answers, and that they should feel comfortable to express themselves on the topics discussed.
- Ask participants to give specific examples or "stories."
- Ensure that answers will be reported anonymously.
- Ask if the session can be tape-recorded.

Note—Clarify with the translator:

- The word "evaluation" is not meant in the sense of judgment, but rather assessment.
- Try to elicit specific examples; ask people to "tell stories."
- We would like to generate dialogue and "story telling" rather than having a Question and Answer session.

QUESTIONS

For School Administrators

- What is your position at this school?

Questions re: HPS concept

- Hold up the Chinese characters for “Health-Promoting School.”

Can you please describe what this (the HPS concept) means to you?

(**Alternative:** One of the objectives of this project is to help each school become a Health-Promoting School. Please tell me what your school will be like if it fully achieves becoming a Health-Promoting School.)

- What of this is currently happening in your school?

Questions re: Evaluation/Assessment (describe a process)

- Please tell me your overall impression/assessment of the HPS project at your school.

(Why do you think this way?)

- Please tell me if you did anything to assess the implementation or effectiveness of the interventions. If so, please tell me what you did and what you found. Tell me if you made any changes based on your findings, and if so, what kind of changes you made.

Now we would like to ask each of you to share with us some specific examples.

Please tell me ...

- What was the (one) most important positive outcome/change since your school has become a Health-Promoting School? (Why do you consider this the most important change?)
- How was it before your school became a Health-Promoting School?
- How did conditions change? What specific steps were taken?
- What was challenging about making this change?
- What was helpful in making this change?
- Please tell me what has been different in your life since your school became a Health-Promoting School (Please elaborate: What have you *learned*, and what are you *doing* differently, if anything? What was the one most important thing that *initiated that change*?)
- Do you have any further comments or questions?

If time allows:

- Please tell me what *challenges* were encountered with implementing and evaluating HPS interventions. How can these challenges be addressed?
- What else can you tell me about *what you have learned* that would be helpful to others who want to implement and evaluate effective school health programs?

For Teachers

- What grades and subjects do you teach?

Questions re: HPS concept

- Hold up the Chinese characters for “Health-Promoting School.”

Can you please describe what this (the HPS concept) means to you?

(**Alternative:** One of the objectives of this project is to help each school become a Health-Promoting School. Please tell me what your school will be like if it fully achieves becoming a Health-Promoting School.)

- What of this is currently happening in your school?

Questions: Evaluation/Assessment

- Please tell me your overall impression/assessment of the HPS project at your school.

(Why do you think this way?)

- Please tell me if you did anything to assess the implementation or effectiveness of the interventions. If so, please tell me what you did and what you found. Tell me if you made any changes based on your findings, and if so, what kind of changes you made.

Now we would like to ask some of you to share with us some specific examples.

Please tell me ...

- What was the (one) most important positive outcome/change since your school has become a Health-Promoting School? (Why do you consider this the most important change?)
- How was it before your school became a Health-Promoting School?
- How did conditions change? What specific steps were taken?
- What was challenging about making this change?
- What was helpful in making this change?
- Please tell me, what has been different in your life since your school became a Health-Promoting School. (What have you *learned*, and what are you *doing* differently, if anything? What was the one most important thing that *initiated that change*?)
- Do you have any further comments or questions?

If time allows:

- Please tell me what *challenges* were encountered with implementing and evaluating HPS interventions. How can these challenges be addressed?
- What else can you tell me about *what you have learned* that would be helpful to others who want to implement and evaluate effective school health programs?

For Students

- What grades are you in?
- What ages or age range?

Questions re: HPS concept

- Hold up the Chinese characters for “Health-Promoting School.”

Can you please describe what this (the HPS concept) means to you?

(**Alternative:** One of the objectives of this project is to help each school become a Health-Promoting School. Please tell me what your school will be like if it fully achieves becoming a Health-Promoting School.)

- What of this is currently happening in your school?

Questions re: Evaluation/Assessment

- Please tell me your overall impression/assessment of the HPS project at your school.

(Why do you think this way?)

Now we would like to ask some of you to share with us some specific examples.

Please tell me ...

- What was the (one) most important positive outcome/change since your school has become a Health-Promoting School? (Why do you consider this the most important change?)
- How was it before your school became a Health-Promoting School?
- How did conditions change? What specific steps were taken?
- What was challenging about making this change?
- What was helpful in making this change?
- Please tell me what has been different in your life since your school became a Health-Promoting School. (What have you *learned*, and what are you *doing* differently, if anything? What was the one most important thing that *initiated that change*?)
- Do you have any further comments or questions?

If time allows:

- Please tell me what *challenges* were encountered with implementing and evaluating HPS interventions. How can these challenges be addressed?
- What else can you tell me about *what you have learned* that would be helpful to others who want to implement and evaluate effective school health programs?

For Parents

- What grade is your child in?

Questions re: HPS concept

- Hold up the Chinese characters for “Health-Promoting School.”

Can you please describe to me what this (the HPS concept) means to you?

(**Alternative:** One of the objectives of this project is to help each school become a Health-Promoting School. Please tell me what your school will be like if it fully achieves becoming a Health-Promoting School.)

- What of this is currently happening in your child’s school?

Questions re: Evaluation/Assessment

- Please tell me your overall impression/assessment of the HPS project at your child’s school. (Why do you think this way?)

Now we would like to ask some of you to share with us some specific examples.

Please tell me ...

- What was the (one) most important positive outcome/change since your child's school has become a Health-Promoting School? (Why do you consider this the most important change?)
- How was it before your child's school became a Health-Promoting School?
- How did conditions change? What specific steps were taken?
- What was challenging about making this change?
- What was helpful in making this change?
- Please tell me what has been different in your life since your child's school became a Health-Promoting School? (What have you *learned*, and what are you *doing* differently, if anything? What was the one most important thing that *initiated that change*?)
- Do you have any further comments or questions?

If time allows:

- Please tell me what *challenges* were encountered with implementing and evaluating HPS interventions. How can these challenges be addressed?
- What else can you tell me about *what you have learned* that would be helpful to others who want to implement and evaluate effective school health programs?

*Appendix 4**Final List of Codes for First Level of Analysis*

HU: HPS China

File: [C:\Documents and Settings\Carmen Aldinger\My
Documents\Lesley\Dissertation\Results\HPS China.hpr5]

Edited by: Super

Date/Time: 04/22/06 01:32:32 PM

-HPS Community

-HPS Counseling/Mental Health

-HPS Health Ed

-HPS Health Service

-HPS Nutrition

-HPS Phys Ed

-HPS Phys Environment

-HPS Policy

-HPS Psych Environment

-HPS Staff HP

#Administrators

#Parents

#Students

#Teachers

*School 1 Yi

*School 2 Er

*School 3 San

*School 4 Si

*School 5 Wu

*School 6 Liu

*School 7 Qi

*School 8 Ba

*School 9 Jiu

*School: elementary

*School: high

*School: middle

*School: vocational

@June 04

@Nov 04

@Nov 05

Activities: arts day/festivals/commemoration days

Activities: caring for one another

Activities: checking appearance/behavior

Activities: class meetings/dissemination of knowledge

Activities: communication w/parents

Activities: competitions in behavior

Activities: conversation about students' health

Activities: dissemination to community

Activities: extracurricular

Activities: eye exercises

Activities: four student groups/ companion education association

Activities: health services

Activities: issuing documents

Activities: knowledge competition

Activities: nutritious food

Activities: parents meetings

Activities: physical exams/health check-up

Activities: physical exercise/military training

Activities: psychological care

Activities: psychological consultations

Activities: research

Activities: safety

Activities: sanitary work

Activities: school radio station

Activities: signature commitment

Activities: social practice

Activities: social skills/life skills activities

Activities: special mailbox/hotline

Activities: start-up evening/mobilization meetings

Activities: student organizations

Activities: students display talents

Activities: wallboards

Activities: wear uniform/good discipline

Activities: writing/drawing competitions

Attitude change: better psychological quality

Attitude change: broad concept of health

Attitude change: increased understanding of health

Attitude change: more relaxed

Attitude change: motivation (to be healthy/to study)

Attitude change: outlook changes/increased student interest in school life

Attitude change: pay attention to health

Attitude change: teachers as friends

Balance betw academics and health

Behavior change: active participation

Behavior change: changed bad habits/formed good habits

Behavior change: diet changes

Behavior change: increased adaptability/social skills

Behavior change: injuries reduced

Behavior change: more opps to do things (by themselves)

Behavior change: more sports/phys activity

Behavior change: parents treat children differently

Behavior change: protect trees

Behavior change: safety

Behavior change: sanitary habits/hygiene

Behavior change: smoking quit or reduced

Challenge: balancing academics and HP

Challenge: difficult to change bad habits

Challenge: extending HP to community

Challenge: health problems

Challenge: heavy workload

Challenge: it takes time

Challenge: lack of experience

Challenge: lack of facilities

Challenge: lack of funds/supplies

Challenge: lack of knowledge/skills

Challenge: lack of obedience/rebellion

Challenge: lack of support from govt

Challenge: lack of support from society and parents

Challenge: lack of technical support/skills

Challenge: lack of trained staff

Challenge: need continued efforts/expansion

Challenge: not realizing problems

Challenge: process

Challenge: relations with parents

Challenge: sanitation/health condition in countryside

Challenge: teachers' communication w/students

Challenge: uncomfortable to ask for help

Challenge: understanding HP concept

Challenges: none

Communication increased w/children

Communication increased w/parents

Communication increased w/school

Communication increased w/teachers

Decision-making: selecting class activities/topics

Decision-making: selecting entry point

Decision-making: selecting interventions

Decision-making: work plan

Description of party secretary

Environment: clean/beautiful

Environment: harmonious atmosphere

Environment: improved facilities

Environment: school uniforms

Environment: smoke-free

Evaluation

Evaluation: baseline

Evaluation: final

Evaluation: process eval

Evaluation: standards change

Health concept expanded

Health improved

HPS concept

Knowledge change: learned skills and concepts

Limitations

Organization/Management

Organization: adapt to practical situation

Organization: being role models

Organization: children teach their families

Organization: co-work with others

Organization: commitment

Organization: comprehensive development of children

Organization: comprehensive interventions

Organization: cooperation among students

Organization: cooperation with community

Organization: cooperation with other departments

Organization: different kinds of activities

Organization: equal treatment of students

Organization: equality betw teachers and students

Organization: goals, regulations, systems

Organization: good relationship betw students and teachers

Organization: Health is First concept

Organization: HPS planning committee

Organization: input from parents & students

Organization: input from teachers

Organization: integrated part of school responsibility

Organization: integrating health into various classes

Organization: leadership support

Organization: motivation

Organization: popularization of knowledge/publicity

Organization: realization of importance of health

Organization: reflect interests of students

Organization: role of parents

Organization: role of school leadership

Organization: role of teachers

Organization: wide participation

Organization: rules/regulations and obedience

Reluctance to share?

Teaching methods: encourage students to talk

Teaching methods: harmonious atmosphere

Teaching methods: improved communication

Teaching methods: integrating health into various classes

Teaching methods: new concepts and methods

Teaching methods: new text books

Training

Training: getting health info from Internet

Training: HPS concept learning

Training: invited experts

Training: learning from other schools

Training: programs thru CDC/others

178 codes

Appendix 5

List of Codes for Second Level of Analysis

HU: HPS Analysis China

File: [C:\Documents and Settings\Carmen Aldinger\My
Documents\Lesley\Dissertation\...\HPS Analysis China.hpr5]

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Change: adaptation to local concerns

Change: admin and mgt support

Change: attention to external forces

Change: critical mass & supportive norms

Change: data-driven planning & decision-making

Change: dedicated time & resources

Change: leadership skills

Change: national guidelines and movement

Change: team training

Change: vision or big ideas

HPS: counseling/mental health

HPS: health education

HPS: health services

HPS: nutrition

HPS: outreach community & family

HPS: physical education/exercise

HPS: physical environment

HPS: policy

HPS: psycho-social environment

HPS: staff health promotion

Limitations

Success: content - relevant

Success: gaining commitment

Success: methods - variety, participatory

Success: multi-strategies

Success: participation

Success: relevance - reality, developmt level

Success: teacher training

Success: theoretical underpinning

Success: time and sequence

30 codes

Appendix 6

School 1 – Work Plans

Each semester has a work plan; one part of it is for nutrition education.

I. Carefully study school regulations for hygiene and health.

To emphasize the importance of health education [called a “slogan” by the translator]

1. To do publicity in detail: every month new bulletin board window for health and nutrition education; every class has to have a competition for health knowledge or psychological education publicity activity.
2. Emphasize each class should have this course once a week.
3. Regularly have lecture about health education knowledge and test on health knowledge and regularly have parents’ meetings.
4. Beautify school environment: campus is divided into parts, classes are in charge of parts, and teachers will check what they have done.
5. Each teacher has to teach students proper (sitting?) behavior so to train good habits for reading, writing, improving sight with the hope to improve shortsightedness; nurse has to give medical check-up for students every year.
6. Emphasize the importance of hygiene check-up: professional nurse to check every day with duty teacher, not to litter, encourage students to have good sanitary habits.

7. Prevention: immunization regularly; to check food water whether it is hygienic.

II. Organize teachers to take part in psychological health education.

Training course in psychology; set aside an office for a psychologist that students can go to and talk to if they have a problem; psychological activities to carry out with class; head teacher should offer this in class or after class so that students don't need to go to a special office but can talk to their own teacher.

III. Emphasize safety education.

To forbid drugs; to teach students skills to protect themselves to be safe.

There is a separate plan for activities to achieve the WHO silver medal for Health-Promoting Schools:

China/WHO “Nutrition health education silver medal model school”

[Starts with an introduction referring to the China/WHO/FAO project with a training in April 2000, mid-term evaluation in April 2001 and final evaluation in May 2002].

In order to promote nutrition health education and improve our nation's awareness of nutrition health education and their physical quality, we are determined to make efforts for a “silver medal model school.” Our plans are as follows:

I. Continue the regular work on nutrition, health & hygiene education:

[This is a summary translation of the following points.]

1. Nutrition education classes: relate each course to nutrition
2. Hold class activities related to nutrition and record activities and get feedback from students
3. Blackboard publicity, window on nutrition education, wall painting competition once per term
4. Publicity on Nutrition Day (May 20), Non-Smoking Day (May 31), Good Teeth Day (September 20), AIDS Day (December 1)

II Develop the school's nutrition-health based curriculum and do related research

1. Goal for the curriculum development

a. General Goal

Through “nutrition-health” school curriculum education every pupil gets necessary knowledge on “nutrition-health” and healthy drinking and eating so as to strengthen the pupils' health awareness, form good habits and improve their well-being.

2. Detailed Targets

Based on the standards of the “Health-Promoting” project of WHO, we make detailed targets as follows:

A. Knowledge

- a. Teach pupils to have a brief knowledge of the basic nutrition elements and their uses
- b. Teach pupils to know different kinds of food rich in nutrition
- c. Teach pupils to know something about balanced diet
- d. Teach pupils to get a brief knowledge of nutrient deficiencies and the major related diseases

B. Attitude/Belief

- a. Set up a belief that a good and healthy drinking-eating habit benefits one's physical and mental well-being and helps one to study better
- b. . . . that reasonable arrangement of three meals a day is essential to human's health

c. . . . that reasonable nutrition input in one's adolescence is closely related to one's adulthood

C. Behavior/Skills

- a. Help pupils to get rid of their bad habit of missing their breakfast
- b. Help pupils to get rid of their bad habit of being particular in food
- c. Help pupils to distinguish rotten food and expired food
- d. Teach pupils to learn to prepare nutrition-balanced meal

2. Curriculum development and its content

A. Textbook and its catalogue

Volume One: Life and Nutrition

Lesson One: Basic materials of life

Lesson Two: Protein--carrier of life

Lesson Three: Water--cradle of life

Lesson Four: Calories--energy of life

Lesson Five: Minerals--steel for being

Lesson Six: Vitamins--keeper of life

Lesson Seven: Fat--protecting layer of life

Lesson Eight: Carbonic acid--supplier of life's metabolism

Volume Two: Nutrition and Health

Lesson One: Nutrition and growth

Lesson Two: Nutrition and intelligence

Lesson Three: Nutrition and immunocompetence

Lesson Four: Nutrient deficiencies and related diseases

Lesson Five: Principle of balanced diet

Lesson Six: Knowledge about nutritious Western food

Lesson Seven: Making nutrition balanced meal (i)

Making nutrition balanced meal (ii)

Appendix: Case study of nutrition-health class

Activities:

1. Health with you and me
2. Start from me
3. Let go our wishes--May good health accompany my growth
4. Welcome to the healthy city
5. Nutrition-health with you and me
6. Nutrition and health
7. Nutrition-health and the 21st century
8. For the sake of health and intelligence
9. Let's have a good health
10. Nutrition and health
11. In order to be healthy
12. Treasure our life 100%
13. Let's enjoy a healthy life
14. Enter the nutrition world

15. The essence of nutrition-health
16. Everybody needs nutrition and everybody wants a good health
17. Nutrition-health and me
18. Nutrition-health goes with me
19. Nutrition-health and me

B. Text compiling structure

a. Knowledge about nutrition-health

b. Our research

- Our questions
- Methods and approaches (consulting books, doctors, Internet)
- Collection of materials (text and pictures)
- Results

C. Knowledge/Skills. Attitude/Emotions evaluation

D. Teaching principles

- Self study
- Research study
- Practice study

3. Courses

A. The text is suitable for:

Volume One for Grade 3

Volume Two for Grade 4

B. Courses (Note: time assigned to teacher to do these activities):

4 classes per semester teaching

6 classes per semester researching

4 classes per semester practicing

4. Curriculum development committee

Appendix 7

School 2 – Work Plan for Spring 2004 Semester

[casual translation] According to the city CDC and the school's own HPS plan, this semester we need to give attention to the following: preparation phase, first portion of the interventions, consider all aspects of the general program, start work combined with school work. The focus is on preparation phase, including enforcing related employee's knowledge, beliefs, and behaviors and training. For details, please see below.

Month		Activity	Participants	Method	Host
February Health education month	Early	Study documents related to HPS	Headmaster, Deputy headmaster (names mentioned)	Self-study	(Name of responsible person listed for each activity)
	Middle	Set up committee Build network	Headmasters	Meeting	
	Late	Hold competition for beautification of dormitories Execute group study of documents	Students Committee members	Competition Group study/self-study	
March Month of new health education	Early	Make plan and decide duty for each position	Executive group, authority	Written form	
	Middle	Make HPS regulations/rules	Executive group, authority	Written form	
	Late	Hold publicity activity	All students	Broadcasting, blackboard, social survey	
April Month of safety education	Early	Set up rules for safety regulations	All students	Broadcasting, blackboard, social survey	
	Middle	Lectures on students' psychological well-being education	All students	Lecture	

	Late	First arts day	All students	Broadcasting, blackboard	
May	Early	Initiate HPS	All students	Mass meeting	
	Middle	Issue policy of HPS	HPS office	Publicity window	
	Late	Basic investigation on HPS	All students	Questionnaires	
June Nutrition education month	Early	Participate in city's initiative of HPS [Start-up Evening]	Part of students	Show	
	Middle	Education on balanced diet for students (lectures, blackboard)	All students	Blackboard, lecture	
	Late	Picture exhibits on healthy nutrition	All students	Pictures, class study of information concerned	
July		General evaluation/summary for semester	Committee, authority	Meeting	

Appendix 8

School 2 – Regulations for this School

Contents

General regulations for the HPS project

Rules for units involved

Introduction of morality department

Introduction of logistics/supply department

Introduction of teaching department

Rules for patriotic health campaign/movement committee

Rules for reporting of health work

Rules for canteen

Canteen regulations for students

Rules for nutrition health

Rules for non-smoking

Rules for regular health check-up

Introduction to how to prevent common disease for students

Rules for infectious disease control

Plan to prevent infectious disease

Plan for how to prevent food poisoning

Rules for school's HPS project

1. To carry out the HPS project is to improve the students' and faculty's well-being.

To guarantee the effective execution of the application for the Bronze Medal we make these regulations.

2. The plan for the HPS project is to be carried out by the executive group under the leadership of the school authority. Meanwhile we invite people from the community, health consultant, nutritionist, representative of the community and parents to coordinate work [collaborate with?].

3. School is to make relative rules to supply safe and healthy educational environment.

(1) Follow laws, legislation concerning food health and emphasize administration on food health. School and canteen provide students with nutrition-balanced diet, ample health facility and healthy drinking water to improve nutrition and health service.

(2) Stress on the management of personal sanitation, environment sanitation, and dormitory sanitation.

(3) Perfect students' health rule, supply regular health/medical check-up and build files about students' health.

(4) Follow laws and bills concerning infectious disease prevention. Do work well controlling and preventing urgent and chronic infections disease and local diseases.

(5) Forbid students to smoke in and outside school campus, prohibit students from drinking alcohol and other activities harmful to children's mental and physical being.

4. To enact health education with school's curriculum, deepen students' understanding of theories on health issue, and improve their skills. Carry out colorful activities, learn and apply health knowledge.
5. The school should attach importance to patriotic education and health to promote the building of students' healthy psychological quality. The school is to give special care and help to students from poor families or who have trouble in study or who suffer from deficiency.
6. Educate and instruct teachers to give suggestions and bring out their ability to carry out the HPS project. The school is to guarantee teachers and parents to have chances to get skills on nutrition education.
7. The school is to focus on parents' education on their children and supply them with relative instruction. Contact parents and community actively, provide opportunities for parents and community people to take part in the school activities.
8. The school is to make efforts to obtain spiritual and material help from units concerned on HPS project.
9. The school is to set up an award system to award the teachers, students, parents and other people who make contributions to HPS project.
10. Follow closely the rules and regulations of WHO, make efforts to carry out the work step by step and achieve continuously.
11. In the execution of the HPS plan, generalization and improvement is very important. Any alteration of the plan and its content should be discussed among the authority committee before execution.

Rules for the units involved

A. HPS authority committee

1. To relate HPS work to school's work plan and devote to HPS project.
2. Set up courses on health education and relate the concept with every subject, make sure that there's a relative theme monthly.
3. Make sure that students can have PE classes and guarantee the school to have one hour for sports activities and reduce injury possibility to 0 in PE classes.
4. Check regularly the classroom's brightness, lights, and blackboard. The school's construction and facilities meet the rules and standard made by the nation on construction designing and school's health and sanitation.
5. One certain person should be responsible for the school's environmental sanitation. Make plans for regular general cleaning check-up to ensure the school's environment clean and tidy.
6. Strengthen the contact between school, community, and families. Regularly organize students to carry out community health activities, regularly hold parents' meeting to supply them with information on students' health.
7. Regularly provide faculty and students medical check-up. Make efforts to get 100% students have quality-health cards.
8. Plan to supply 95% regular immunization quarantining. Plan to supply certifications 100%.
9. Sanitary check regularly on canteen to ensure no food poisoning.
10. Carry out activities on forbidding smoking.
11. Provide students with regular education on students' regulations.

B. Morality department

1. Relate HPS work to the work plan for the department.
2. Personnel in the department have strong awareness of health and pay attention to their own health and sanitation.
3. Carry out non-smoking activities. Don't smoke in the office. Don't accept cigarettes offered by guests and ask guests not to smoke in the office.
4. Clean the office every morning to keep the room clean and tidy.
5. Open the door and windows often to keep fresh air in.
6. Carry out colorful entertainment and sports activities to enrich the students' school life and improve their physical and mental being.
7. Provide psychological consultation and training by establishing "blinds' (?) communication station" and "whisper" letter box.
8. Hold composition competition on topics such as "I'd like to tell my parents" and "I'd like to tell my teachers" in order to improve the development of the students' mental and physical being.

C. Logistics department

1. Relate HPS work to the work plan of the logistics department.
2. Supply teaching tools and space for health education classes.
3. Check regularly the sports facilities and their safety condition to guarantee no injuries should happen in PE classes and school's PE activities.

4. Check regularly the classroom's brightness, lightness, and blackboard. School's constructions and facilities follow the rules concerning construction designing and meet the standard of the school.

5. Assign a certain people to take charge of the school's sanitary environment.

6. [the same as A no. 5] [the same as No. P. A.]

7. People working in logistics department should not smoke.

D. Teaching department

1. Relate HPS work to the work plan of the teaching department.

2. Personnel in the teaching department have strong health awareness. Be sanitary and wash their hands often.

3. [the same as No. 3 B]

4. [the same as No. 4 B]

5. [the same as No. 5 B]

6. Classify rubbish. Recycle those can be recycled as much as possible. Try to use as many green materials as possible.

7. [same as No. 2 A]

8. [same as No. 3 A]

Appendix 9

School 2 – 2003 Plan for Second Semester for Health-Promoting Schools

2003 Plan for second semester for HPS [casual summary translation]

[Introduction]

I Goals

1. Advocate the school to study the documents gotten from the workshop in Hangzhou
2. Make students' psychological well-being their goal of the work
3. Set different classes on health education to train students to have good health concept and skills
4. Cooperate with parents, community, League, transportation department, and fire station
5. Supply faculty with essential health education

II Promise

Health:

Environment: . . .

Safety:

Food & Water:

Non-Smoking:

Education:

III Organizational structure and work plan

1. Authority committee

....

2. Execution

....

(1) Different themes/topics each month

March: beautifying our dormitory

April: safe campus, 1st arts day

May: advanced students sent to Nanjing for patriotic education; help those who lay back in studies

June: nutrition health month: blackboard, health posters, bulletin; once every two weeks

(2) Building a non-smoking school

(3) Nutrition education courses: class, blackboard; broadcast twice

(4) Medical check-up once a year

(5) Regular canteen sanitation check-up

(6) Regulations made for healthy and clean environment

(7) Health education, service provision and health record for faculty

(8) Regular measurement and record for teachers of hypertension and give relative instructions

(9) Adequate time for student sports, activities, make HPS regulations

IV Evaluation

1.

2.

Goals for further efforts

Appendix 10

School 3 – “[Name of school] New Horizons in Health, Second Edition,

June 4, 2004”

The China/WHO “Health-Promoting Schools” Project—Focusing on a Sound Mind and Body

Background:

Children represent the future of mankind. Raising the level of health awareness strengthens the quality of health for the next generation of China’s population. This task possesses a profound and lasting strategic significance. At the same time, the habits formed early in one’s life can have a great influence on behaviors that develop at later stages in one’s life. A great deal of evidence also indicates that young people’s health is one important factor that influences their performance in school. For this reason, many countries place great importance on school health education.

However, because school health education is mainly a classroom activity, it has its limitations. As a result, it has been difficult for school health education to produce the hoped-for improvements in student health.

On the basis of this foundation of experience with school health education, the WHO developed the new concept of “Health-Promoting Schools” in the mid-1980s. In 1992,

some regions of Europe formally took action to establish health promoting schools. In November of 1995, a pilot of the China/WHO Health-Promoting Schools collaborative project was launched. In early 1996, three cities, Beijing, Chifeng in Inner Mongolia, and Wuhan in Hubei province participated in this project. Shanghai joined the project soon after. After undergoing seven or eight years of development, the health of the students in some of the project schools has improved.

Efforts to improve school health education have made great progress. However, health education is still limited, and there is still an emphasis on standard academic education and on increasing the proportion of students passing into higher levels of the education system. For these reasons, school health education has never been able to achieve the expected goals. For example, the average rate at which primary and middle school students were absent from school because of illness in Hangzhou in the 2000–01 school year was 0.28 days per person. In the 2001–02 school year, this figure was 0.20 days per person, and in the 2002–03 school year this figure was 0.32 days/person. The rate at which students dropped out of primary and middle school due to illness was 0.376% in the 2000–01 school year, 0.049% in the 2001–02 school year and 0.629% in the 2002–03 school year. The occurrence of common health conditions among students, such as poor nutrition, vision problems and cavities, remains high and has not decreased. Among students, such problems as psychological illness, accidental injury, and cardiovascular diseases appear to be increasing. Therefore, taking effective measures to increase the quality of students' mental and physical health is an issue that must be addressed immediately. Moreover, to solve this problem, we must develop "Health-Promoting

Schools.” Only in this way can we ensure that students grow up healthy and promote the health of all community members, including school staff and parents. School will not only be a place to obtain knowledge but also a place to obtain health.

Subtitle: In view of this goal, in May 2004 my school initiated the “Health-Promoting Schools” project. Moreover, in accordance with the specific conditions of the school, we began by focusing on physical and mental health.

Goals:

Overall Goal: To provide a foundation for the children of the school to grow up healthy and to increase students’ knowledge and improve their behavior with respect to health issues.

Specific goals:

1. To incorporate the program of “Health-Promoting Schools” into the school’s general plan.
2. To offer health education courses and for issues relevant to health to be integrated into the curriculum at all grade levels. The content of this curriculum should cover individual hygiene, prevention of common illnesses, controlling smoking, nutrition, psychological health, safety, first aid, etc.
3. To develop a healthy school community and to launch many kinds of extracurricular activities related to promoting a healthy lifestyle.
4. To establish a school environment that supports health.

5. To establish school health services targeted towards student health needs.

Strategy and Steps for the Program:

1. Establish an organization of leaders and other stakeholders for the work of promoting health. This organization will have a leadership group, a professional and expert group, a group for implementing the project, and a community and parent coordination group. This organization will formulate school hygiene policy and assign relevant responsibilities [to groups and individuals].
2. Provide training to allow all teachers and school staff to master the basic health knowledge central to project. In addition, teacher and staff should master the goals, standards, strategies, and steps for implementing the project.
3. Formulate school health policy:
 - 3.1 Make a plan to deal with such issues as the prevention of common health conditions. Make procedures for first aid for acute illness and injury. Make a plan to expand training in first aid. Make a plan to improve teachers' and students' mastery of life and health skills, etc.
 - 3.2 Make a plan to deal with such issues as promoting better nutrition for students, prohibiting smoking, promoting equality between male and female students, and ensuring that disabled students are not discriminated against.
4. The physical environment of the school:
 - 4.1 The school should provide a safe environment for students, including safe classrooms, safe sports equipment, etc.
 - 4.2 The school should provide sanitation facilities that meet sanitation standards.

5. The social environment of the school:

5.1 The school should provide psychological health counseling services for students, including having psychological counselors on staff and providing a psychological counseling mailbox.

5.2 Among students and teachers there should be an environment of mutual concern, honesty, and warmth. This should include guidelines for helping less advanced students, respecting the customs of different ethnic groups, and encouraging polite behavior.

6. Relationship with the community:

6.1 Families and community members should participate in the activities of the “Health-Promoting Schools” program.

6.2 The school and the community should have an intimate relationship.

7. Health skills for individuals:

7.1 Establish health education courses. These should include physiology and hygiene; safety and first aid; personal health care, etc. These courses should be integrated into the general teaching program.

7.2 There should be a plan for extracurricular health activities that will consolidate the knowledge learned in the classroom. This will ensure that students master skills for dealing with common health conditions (in themselves and others) and that they will learn how to maintain their psychological health.

8. Health services:

8.1 Will provide periodical student physical examinations.

8.2 Will establish student health files.

8.3 Will have standard prevention and treatment measures for commonly occurring health conditions such as near-sightedness and cavities, etc.

8.4 Should be able to resolve problems that teachers have concerning health.

Implementation:

1. The Project Implementation Group will draft the school hygiene policy.
2. Each school's Project Leading Group and Project Implementation Group will examine and improve the physical and social environment of each school. This includes training a psychological coach.
3. The Hangzhou Disease Prevention and Control Center's Health Education Office will formulate the plan for the training program. Moreover, they will train the administrators, teachers, and medical staff from the four schools.
4. The city Health Education Office and individual schools will jointly appeal to each work unit and each individual member of the community to encourage them to show concern for and participate in activities related to the program of Health-Promoting Schools. Head teachers will regularly inform parents of the activities of the program. The school will hold regular meetings to gather suggestions from parents and to encourage them to support the program.
5. For individual health skills, each school is responsible for offering health education courses and for fully integrating these into teaching activities and, at the same time, is responsible for creating various kinds of extracurricular health education activities. The city Health Education Office is responsible for designing methods to popularize knowledge concerning hygiene.

6. If any unexpected problems arise concerning student and staff health services, the Disease Prevention and Control Center and the local Public Health Department may assist in resolving these problems and in providing consulting and training services for the school.

Appendix 11

School 5 - Protocol for the Administration of China/WHO HPS Project—

Mental Health Education as a Starting Point

Time	Activities	Organization
Feb-Apr	<ul style="list-style-type: none"> a. visited other schools, investigated and learned from them, and operation skills training; b. set up administration committee and implement groups for the object of HPS; c. held meetings about the school health policies, explored the problems about the students' physical and mental health, set up the work plan to become a Health-Promoting School. 	the schoolmaster office, the department of educational administration and the group of mental health study, group in charge of object
May	<ul style="list-style-type: none"> a. held the first HPS practice activity—school football game; b. held a meeting for the start-up of the HPS objects; c. had a class meeting on the topic of mental health every class; d. set up a special mail box and phone call for mental health consultation. 	Gymnastic group, county board of health, department of education, school, teachers in charge of the class, psychology education teachers
Jun-Jul	<ul style="list-style-type: none"> a. baseline investigation of students' mental health and GSHS; b. solicit articles competition about raising ethos and feeling family, honesty and survival c. given a lesson about mental health (the teaching materials should be handed in); d. situation analysis and objective making by the county department of health, teaching, business, school, community, parents. 	Experts from Province and cities, the schoolmaster office, the department of educational administration, grammar group and the administration group
September	<ul style="list-style-type: none"> a. held the second HPS practice activity—military training of the first grade of junior high school; b. set radio station called voice of schoolfellow; c. investigation by the people in charge of the HPS object from cities and counties; d. held the third HPS practice activity— 	The policy administration office, mental health education office, objects implementing group, the communistic committee for youth

	knowledge competition.	
October	<ul style="list-style-type: none"> a. celebration of “November 3” activity—show off your skill; b. held the fourth HPS practice activity—school athletic meeting; c. special inspection about knowledge of mental health (wall paper); d. group meeting about the primary work, amending the midterm causes; e. class activities showing lessons about “physical and mental health promotion” each grade (the teach materials should be handed in); f. set up a literature corporation named “far sailing.” 	The communistic committee for youth, the policy administration office, objects implementing group, teachers in charge of the class, Gymnastic group
November	<ul style="list-style-type: none"> a. Conversations among community, parents and teachers about “Is your child healthy?” b. Special lectures by mental experts; c. Held the fifth HPS practice activity—selection of the health ambassador; d. Received the midterm assessment of the experts of China/WHO and the province assessing group. 	County health education department, the communistic committee for youth, the policy administration office, the schoolmaster office, objects implementing group, teachers in charge of the class
December	<ul style="list-style-type: none"> a. Feedback conversations about information of students’ health from school, communities, teachers, students and parents; b. Held the sixth HPS practice activity—painting and calligraphy competition and exhibition; c. Given a lesson about mental health (the teaching materials should be handed in). 	School, the policy administration office, the instruction group, the communistic committee for youth, music and art group
Jan. 2005	<ul style="list-style-type: none"> a. Group meeting about the midterm work, amending final causes; b. Preparation for the solicit articles competition about “life, health and development.” c. Data gathering. 	Objects implementing group, the policy administration office, the grammar group
Feb	<ul style="list-style-type: none"> a. Holding the solicit articles competition about “life, health and development.” b. Class meeting on the topic of mental health teaching (the teaching materials should be handed in). 	The policy administration office, the grammar group, teachers in charge of the class
	a. Given a lesson about mental health (the	The policy administration office,

Mar	<p>teaching materials should be handed in);</p> <p>b. Group meeting about the final work.</p>	the grammar group, teachers in charge of the class
Apr	<p>a. Competition of newspaper reading;</p> <p>b. Final self-investigation and assessment about the HPS work;</p> <p>c. Gathering the data and preparing for the final assessment by the experts of China/WHO.</p>	The policy administration office, the communistic committee for youth, objects implementing group
May	<p>a. Welcome the experts of China/WHO and the province assessing group to give a final assessment</p> <p>b. Hand in the final report of the HPS objects.</p>	The schoolmaster office, the policy administration office, objects implementing group

Appendix 12

School 9 - Survey Results

The GSHS was conducted among 2,230 students (52.4% boys, 47.0% girls, 0.6% missing) of which 17 were age 12 or younger (0.8%), 1,386 (62.2%) were ages 13 to 15, and 813 (36.5%) were age 16 or older. The survey found that more schoolboys than schoolgirls described their weight as very underweight or slightly underweight (32.4% vs. 21.1%); more schoolboys than schoolgirls described their weight as about the right weight (43.4% vs. 38.0%); more schoolgirls than schoolboys described their weight as slightly overweight or very overweight (40.7% vs. 24.6%). During the past 30 days, the group of 13- to 15-year-old students ate breakfast every day (87.3%) and washed their hands before eating most of the time (70.9%) more frequently than the younger or older age group. During the past 30 days, more schoolboys than schoolgirls drank carbonated soft drinks 3 times per day (11.9% vs. 6.7%), and more schoolgirls than schoolboys cleaned or brushed their teeth more than 3 times per day (17.9% vs. 13.9%) and washed their hands before eating most of the time (71.3% vs. 66.5%). During the past 12 months, students in the age 16 or older group were in a physical fight more than 6 times (86.8%)—more often than any other age group—and more schoolgirls than schoolboys were physically attacked (83% vs. 71.6%), in a physical fight (95.7% vs. 74.8%), and seriously injured (80.8% vs. 73.1%). During the past 12 months, more schoolboys than schoolgirls felt so sad or hopeless almost every day for 2 weeks or more in a row that they stopped doing their usual activities (18.7% vs. 14.3%). During the past 30 days, more schoolboys than schoolgirls tried or experimented with cigarette smoking (25.1%

vs. 16.7%) and had a drink containing alcohol more than 1 day (13.3% vs. 8.3%). During a typical or usual week, more schoolboys than schoolgirls were physically active for a total of at least 60 minutes per day (62.3% vs. 58.0%). During the past 7 days, students in the age 12 and younger group missed classes or school without permission more than one day (17.6%)—more often than any other age group—and more schoolgirls than schoolboys considered most of the students in their school kind and helpful (65.4% vs. 55.4%).

The PSE was conducted among 105 school staff and 22 students at baseline (34.6% male, 65.4% female) and 93 school staff and 55 students at follow-up (39.9% male, 60.1% female). Results show increased mean scores from pre- to post-test for all seven quality areas: providing a friendly, rewarding, and supportive atmosphere (from 57.8583 to 63.3581); supporting cooperation and active learning (from 25.8819 to 28.3919); forbidding physical punishment and violence (from 69.1732 to 73.9189); not tolerating bullying, harassment, and discrimination (from 60.2835 to 66.3378); valuing the development of creative activities (from 31.1102 to 35.2365); connecting school and home life through involving parents (from 41.1181 to 47.2838); and promoting equal opportunities and participation in decision-making (from 43.1102 to 48.3243). At post-test, males gave slightly higher scores than females to all quality areas except supporting cooperation and active learning, valuing the development of creative activities, and connecting school and home life through involving parents; students gave higher scores than school staff to all quality areas except connecting school life and home life through involving parents.

The survey about psychological health was answered by 1,111 students at baseline (52.6% male, 47.3% female, 0.1% missing) and 1,314 students at follow-up (49.1% male, 50.8% female, 0.2% missing). Results showed significant differences between pre- and post-test for the self-cognition statements “I will learn from everyone” ($p = 0.005$) and “I’m neither rhyme nor reason when criticized” ($p = 0.008$); there was no significant difference for the statements “I’m not as good as other in some aspects” and “I have a best friend.” Those who analyzed the survey reported statistical difference between pre- and post-intervention in five items (out of 16) of behaviors of students in different environments: “I’ll never laugh at others”; “When someone shatter your favorite goods, I often forgive him”; “When I quarrel with classmates about a peddling [pending?] affair, I often give in first”; “I can control my temper when I’m very angry”; and “I can adjust myself when I am laughed at by others.” In regard to other health-related behaviors, four items decreased from pre- to post-test: smoking (from 21% to 15.0%), have drunk beer (from 63.9% to 58.5%), have ever tried suicide (from 28.8% to 26.9%) and have ever considered about running away from home (from 5.6% to 4.0%). Four items increased: “have taken ataractic or hypnagogue [sic] such as antipsychotic without doctor’s advice” (from 2.4% to 3.2%); “have taken cocaine, heroin, or opium” (from 0.6% to 2.5%); “have ever considered of or planned suicide” (from 11.2% to 11.4%); and “have run away from home” (from 0.9% to 1.4%). One item did not change: “have taken addictive remedy (not for therapy)” (from 1.6% to 1.6%). The survey also showed that after the intervention, students were influenced more by their father (from 56.0% to 62.9%), mother (from 68.9% to 72.5%), teacher (from 38.1% to 45.3%), and classmates (from 27.1% to 28.5%) but less by good friends (from 63.6% to 61.8%) and others (from

14.6% to 13.5%). In regard to outcomes of quarrel with parents, after the intervention there was decreased insistence on own opinion (from 30.8% to 24.4%), less parents forcing children to follow their minds [obey them] though they do not want to (from 38.8% to 32.6%), and less parents complying with children though they do not want to (from 15.6% to 12.4%). After the intervention, parents more frequently gave in to make an agreement (from 41.7% to 54.9%), and it was increasingly rare that parents and children disagreed with each other (from 30.1% to 36.5%). (This was formulated as a double-negative.)

Appendix 13

School 1 – Observation Notes of a “Moral Education” Class

We observed a “moral education” class that focused on the importance of having loving family relationships. We begin with a description of the physical environment of the classroom, followed by notes on the events of the class. All of the content information regarding the class was subject to interpretation/translation.

The first floor classroom, with a door to the school yard, had white walls and green curtains. On the wall were some posters with student work and achievements; one poster included Disney characters. The room had three fans on the ceiling and a cabinet in the back. On the back wall were also plastic folders with sheets, pictures, and “stars” for each student. There were blackboards in the front and in the back of the room. The front of the classroom was equipped with TV, computer, and projectors. The class included about forty 11-year-old students, sitting in rows, with groups of 2 and 3 and 2 students sitting next to each other on wooden tables and chairs. Students wore red “pioneer” cloths bound like ties around their necks. Each student had a plastic-covered name tag. Students wore individual clothing, no uniforms, and most of them sat up straight and had their arms folded on the table in front of them. The teacher looked young, probably in her 20s. She wore jeans and a gray shirt and wore her reddish-colored hair in a pony tail.

The class started with reciting an ancient poem. This was followed by a video presentation with many images of parents taking care of their children such as bathing them or playing with them. Then the teacher raised the question: What did you think of

the video? Children answered that parents worked very hard to bring up their children. This was followed by a short lecture, presumably about loving family relationships. Then students were asked to go into groups of four and tell stories about their parents. A few students then shared with the entire class. One boy, standing in front of the class, said that he swallowed a ball when he was younger and needed surgery. The teacher, who seemed very caring and had very good facial expressions, put her arm around him on his shoulder. Then a young girl in a red sweater, her black hair in two braids, gave the teacher a picture to display on the projector and she shared her story. Then another young girl put up her picture. It was taken amid yellow and red tulips when she was probably about two years old. She was dressed in a warm red jacket with a hood with fur around it, and red pants. Her young mom, in a black top and light blue jeans, was squatting besides her, and holding firm with both arms on her daughter's upper arms. The mom was smiling while the little girl looked a bit scared or sad. The girl shared her story, and then after class she gave me the picture as a present.

The next activity consisted of discussing overheads and computer slides with cartoon-like characters that had different facial expressions. Many students raised their hands, and when they answered they stood up to speak.

Then a mother was invited to give a talk. (Note: This mother was also part of the parents' interviews the following day.) She was probably in her 40s, had reddish hair, as it seems fashionable these days for Chinese women to color their hair. She wore glasses and a blue and white striped shirt. She told the story that her son once stole a toy from a classmate. She said while she loves her child, she could also get angry at him. The mother ended with the points that elders should be respected and that parents love their

children even if they have a different point of view. Then there were some other remarks about “how much our parents love us.”

In the next activity, students were asked to write a note to express thanks to their parents. The teacher passed out a pink folded sheet of paper with a heart shape inside with lines to write on. She played soothing Chinese music in the background while students wrote. (Note: After the class, students got to talk to us in the school yard, and they decided to have my WHO colleague and myself sign our names on the backs of their pink sheets of paper.)

The class concluded with a series of Powerpoint slides that were blending into each other and all children standing up and singing a song.

Our interpreter, who was in his late 30s, said that they never had such a class when he was young. Also, our Shanghai-based consultant said that this was a fairly new class that was taught every week or every other week.



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